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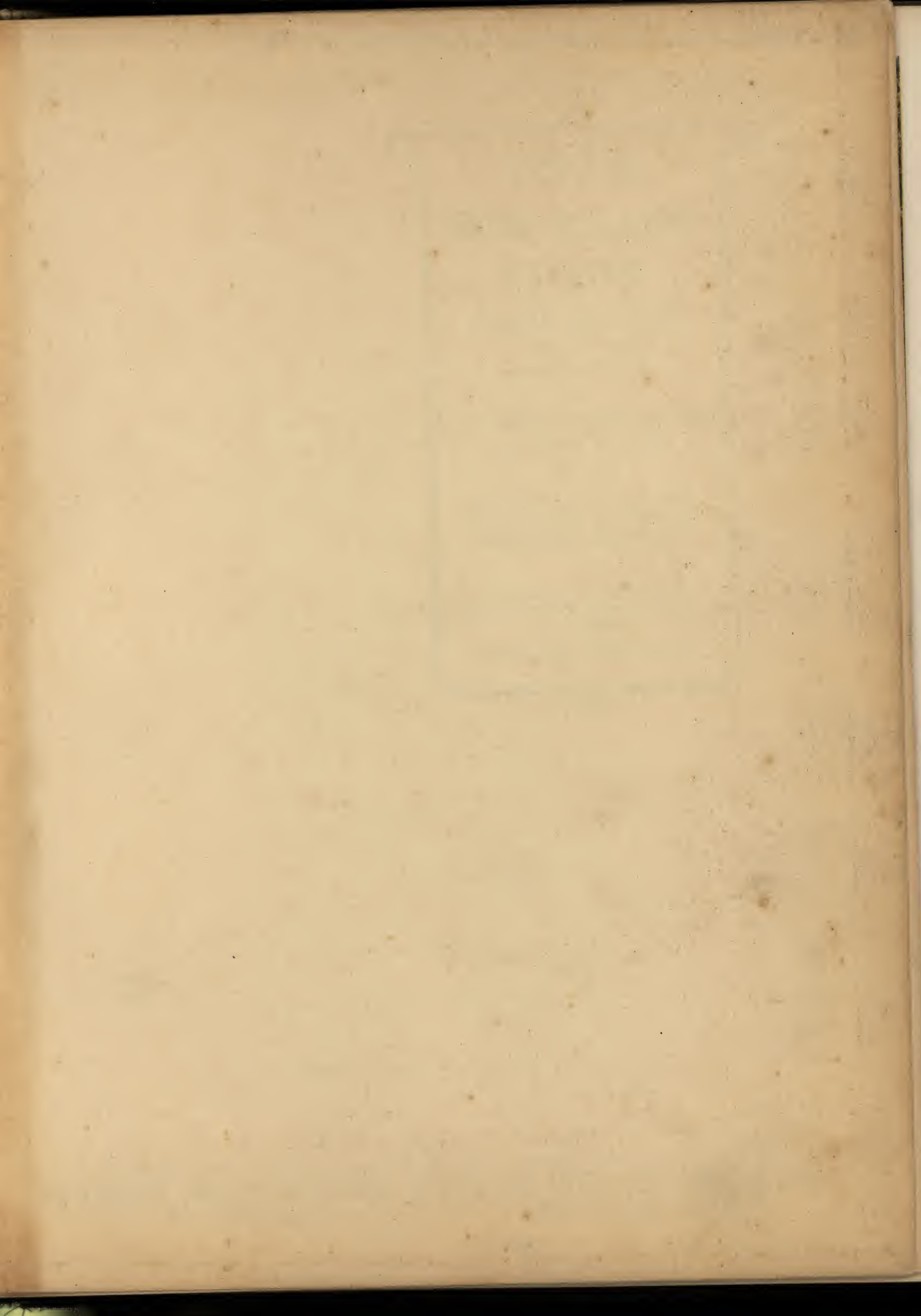
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1928
HOME BUILDERS
CATALOG
THIRD EDITION

A REFERENCE WORK
FOR
BUILDING CONTRACTORS
and HOME OWNERS

CONTAINING
AUTHENTIC INFORMATION
ON BUILDING MATERIALS
AND HOME EQUIPMENT

AND
HUNDREDS OF ORIGINAL
ILLUSTRATIONS AND PLANS OF
ALL TYPES OF
SMALL HOMES

COMPILED, EDITED AND PUBLISHED ANNUALLY BY
HOME BUILDERS CATALOG COMPANY
CHICAGO - - NEW YORK

THIS BOOK is dedicated to the Home Builders of America in the sincere hope that by its aid their standard of living may be further raised, the design of American homes improved and their comforts increased.

Investigation having shown that 90 per cent of the homes built in this country cost from \$3,500 to \$15,000, the houses illustrated in this book are confined to those falling within these price limits. HOME BUILDERS CATALOG is designed, not for millionaires, but for the millions—for that great mass of the American people who are the life-blood of the nation and whom Lincoln said "God must have loved because he made so many of them."

The largest investment ever made by the average family is the sum of money invested in a home. How necessary, then, it is that every precaution should be taken to safeguard this investment and to make it a source of lasting satisfaction—the satisfaction that can be derived only from a home that is attractive in appearance, convenient in arrangement, and thoroughly well built of time-tested and reliable materials.

In the Manufacturers' Section of HOME BUILDERS CATALOG will be found authentic information on each class of building material and on other products necessary for the construction and equipment of the home, and in the Plan Section are hundreds of attractive designs of houses, *each of which has actually been built*. The illustrations are from photographs, giving a clearer idea of how the house will look when finished than can possibly be conveyed by an imaginary sketch.

A careful study of the floor plans will reveal many unique features designed to add to the comfort and convenience of the home without materially increasing its cost. Complete working blue-print plans of any house illustrated can be obtained through the building contractor whose name appears on the front cover of this book.

Of this 1928 edition of HOME BUILDERS CATALOG 25,000 copies were printed and distributed to leading building contractors who specialize in home construction. Copies are also on file in many public libraries. With this broad distribution it is hoped and believed that the helpful information contained in this book will be available to hundreds of thousands of home builders and will aid them, with the help of their building contractor, in securing more attractive, substantial and conveniently arranged homes than would otherwise have been possible.

If this 1928 edition of HOME BUILDERS CATALOG does not include all of the products in which you are interested, we would be glad to have you call such omissions to our attention for our guidance in increasing the usefulness of this reference work in future editions.

Address:

HOME BUILDERS CATALOG CO. 1315 Congress St., Chicago.

Never before has there been a book for the home builder like Home Builders Catalog

IT GIVES you in one big volume *everything* you need to aid you in selecting the most suitable materials for the homes you build and equipping them with those modern refinements and conveniences that mean so much to your customers. The hundreds of beautiful illustrations are of homes *actually built*. The floor plans are in many cases unique, striking examples of combining the maximum of home comforts within minimum space requirements. The Manufacturers' Section is a never-failing source of information and inspiration, containing as it does authentic data on every conceivable kind of building material and home equipment.

Hundreds of leading manufacturers have adopted HOME BUILDERS CATALOG as a means of presenting the merits of their products to prospective home owners through the building contractor. This great co-operative catalog takes the place of thousands of individual catalogs, giving you in one great reference work every bit of information you need to show your customer each detail of the house you propose to build for him.

Backed By Real Service

The Plan Service supplied by the HOME BUILDERS CATALOG CO. (described on pages 633-640) is complete, comprising working blue-print plans of every house and garage illustrated, together with material listing guide, and complete specifications and legal contract forms.

The use of this service insures accuracy and economy in construction, estimates free from errors, and a thoroughly satisfied customer because nothing is left to the imagination. Every detail of his home as it will appear when finished can be shown him in advance in HOME BUILDERS CATALOG.

You will find yourself constantly referring to HOME BUILDERS CATALOG and never will you look to it for aid in vain.

Homes for the Millions

The homes illustrated in HOME BUILDERS CATALOG are the last word in up-to-date style and convenience, yet so perfectly are they designed that not an unnecessary dollar of expense is incurred. The price range is from \$3,500 to \$15,000, covering the needs of the great middle-class of home builders. Ninety per cent of all the homes built in this country fall within these price limits.

Careful attention has been paid to those details of design and construction that give distinction, charm and convenience to the home—such things, for instance, as big, bright living rooms with open fire places; conveniently arranged kitchens with built-in features; breakfast nooks, sun parlors; sleeping porches, bed closets for concealed beds, etc.

Hundreds of Ideas for Our Home Builders

The Manufacturers' Section of HOME BUILDERS CATALOG is the most comprehensive exhibit of building materials and home equipment ever presented to the Building Contractor in a single volume. A careful study of this Section will not only give you

many new and helpful ideas but will enable you to demonstrate to your customers the advantages of the materials or equipment you propose to incorporate in the homes you build for them. Lend your copy of HOME BUILDERS CATALOG to your customers for an evening or two and they will discover for themselves many things they will wish you to include in the homes you build for them. As a means of raising the standard of customer appreciation of better homes you can have no more potent aid than HOME BUILDERS CATALOG.

Creates Desire for Better Homes

The live, wide-awake contractor who uses HOME BUILDERS CATALOG to illustrate to prospective home builders not only the various styles of houses but the particular types of materials he proposes to use in each part of the house will find it easier to arrive at a perfect understanding when his customer is able to visualize what he is going to get for his money.

To the average man or woman the construction of a house is somewhat of a mystery, which is why they often buy an old house instead of building a new one for themselves. The old house may not be exactly what they want but, at any rate, it is something tangible—they know what they are getting—while they find it difficult to picture to themselves the home you propose to build for them, with nothing but the blue-print plans to illustrate it.

But with HOME BUILDERS CATALOG to aid you this difficulty disappears. You can show your customer just how the house you propose to build for him will look when finished. You can show him, in the Manufacturers' Section, every kind of material you propose to use in wall, partition and roof construction, flooring, exterior and interior trim, etc., together with the heating plant, hot water supply, bathroom and laundry fixtures, lighting equipment, and built-in conveniences. In short, you can show him, part by part, the house itself. With HOME BUILDERS CATALOG to aid you you can build more and better homes because it instills confidence in your customers to have every detail of construction made clear to them in advance.

How To Use This Book

Suppose your customer expresses a preference for frame, brick, hollow tile, concrete block or stucco construction. You turn at once to the Plan Section and show him scores of different designs in all of which the type of construction he prefers is used. Then you turn to the Manufacturers' Section, and here under the proper classifications you find complete information on lumber, brick, hollow tile, concrete blocks, stucco, etc., together with hundreds of illustrations, many of them in color.

Nothing short of actually building the house for him will give your customer so clear an idea of how his house will look when completed as a careful study of the Plan Section and Manufacturers' Section of HOME BUILDERS CATALOG.

Changes in Floor Plans

The floor plans shown with each photographic illustration of the complete house are those that experience has demonstrated to be best suited to that particular type of home. Nevertheless it will sometimes happen that your customer will wish minor changes made. These you can promise him, as the Architectural Department of HOME BUILDERS CATALOG is prepared to make such changes in the blueprint plans at nominal cost.

Distinctive Designs

Look at the illustration of "The Cardiff" on page 948. Have you ever seen so much style and distinction in a house of plain gable roof construction? You can see from the picture and the floor plans that this is not an expensive house to build but it has a charm and individuality all its own that will make it the most admired house in its neighborhood.

This is only one of hundreds of similar designs that you will find in HOME BUILDERS CATALOG, each embodying features of designs, construction or interior arrangement that make them different from the ordinary run of houses.

It costs no more to build a well designed house than one that is poorly designed; in fact it usually costs less, for in the well designed house every possible saving in labor costs and materials are provided for. Part of the money you save because of better designing can be used for the purchase of better materials and you are able to build a house in which first class materials only are used for the same cost, or less, than another contractor charges for a house constructed of inferior materials.

A Never-Failing Source of Inspiration

"He builds wisely who builds well," but the home that is suitable for one family is not suitable for another, therefore in HOME BUILDERS CATALOG you will find all sizes and types of homes, ranging in cost from \$3,500 to \$15,000. Each design has something about it that distinguishes it from the ordinary stock-plan house and each has actually been built from the plans we furnish you, so there is no guess work about it.

Here in one big volume—too big to be mislaid but not too big to be easily carried with you—you have 577 illustrations and floor plans of homes and garages, frame, brick, stucco, cement block and hollow tile, each designed by a master hand and each with a charm and character of its own.

In other sections of HOME BUILDERS CATALOG are illustrations and descriptions of all the

various materials used in the construction of a home, together with hundreds of suggestions for making it a more comfortable place to live.

A Co-operative Catalog of Building Materials

Why burden yourself with a multitude of individual booklets and catalogs when in this one great reference work of home building construction—the HOME BUILDERS CATALOG—you have everything you can find elsewhere and in more convenient form for reference?

The arrangement of HOME BUILDERS CATALOG in sections, and the complete index of contents enables you to turn instantly to the page containing the information you desire.

A careful study of the pages of HOME BUILDERS CATALOG will reveal many ideas of great practical value—suggestions that you can pass on to your customers and that will result in better and more conveniently arranged homes.

An Authoritative Reference Book

In preparation of HOME BUILDERS CATALOG

we have not relied only upon our own large staff of building experts but have had the co-operation of the leading national associations affiliated with the building industry as well as the helpful assistance of hundreds of manufacturers of building materials. We believe, therefore, that HOME BUILDERS CATALOG is destined to become the recognized authority among Building Contractors

on building construction and materials.

To Be Published Annually

In order that the latest information regarding construction materials and home equipment may be available to the Building Contractor, HOME BUILDERS CATALOG will be published annually. The present volume is for the year 1928. The 1929 edition will be larger and will contain many new features. Will appreciate comments on the present volume and suggestions for improvements.

Tell us first what you think of the book now before you and how it will help you with your customers. Then, when you have studied each section carefully, tell us how we can make HOME BUILDERS CATALOG more helpful to Building Contractors.

Home Builders Catalog Co.

1315 Congress St., Chicago

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ALPHA PORTLAND CEMENT

Manufactured by
ALPHA PORTLAND CEMENT COMPANY

General Offices: 15 S. Third St., Easton, Pa.; 165 W. Wacker Drive, Chicago, Ill.

Sales Offices: New York, Boston, Philadelphia, Pittsburgh, Baltimore, St. Louis, Battle Creek, Mich., Ironton, Ohio
Plants at: Cementon, N. Y., Jamesville, N. Y., Manheim, W. Va., Martins Creek Pa.,
St. Louis, Mo., La Salle, Ill., Ironton, Ohio, Bellevue, Mich.

Product:

The one product of the Alpha Portland Cement Company is ALPHA CEMENT, made only in one grade and sold always on the guarantee that it will more than meet standard specifications adopted by the American Society for Testing Materials, and approved by the American Engineering Standards Committee.

ALPHA CEMENT is furnished ordinarily in cotton sacks (see illustration below), carrying 94 pounds net—approximately one cubic foot of actual cement—but will be supplied also in paper containers or in bulk carload shipments without containers.

ALPHA CEMENT is one of the oldest American brands and won its reputation in the days when foreign-made cements were used generally in America because of their supposed superior quality. Hourly tests during manufacturing process insure uniform ALPHA quality.

Suggested Uses:

ALPHA CEMENT will give the best results in every type of improvement calling for a high-grade Portland Cement. The requisites are simple—that it be thoroughly mixed with proper proportions of water and suitable aggregates—clean sand and crushed stone, gravel or pebbles, slag, or other approved coarse aggregate. All cement improvements should be reinforced at points that undergo strain.

ALPHA CEMENT improvements, whether for the home building proper or for supplementary improvements for the yard or farm, have much in their favor. They can be made rust-proof, rat-proof, rot-proof, fireproof and water-proof. As the illustrations on this page show, there is a pleasing variety of surface finishes obtainable. This variety may be increased by the use of suitable coloring matter in the mortar. The Alpha Cement Handbook, illustrated on this page, gives formulas for obtaining these color effects, whether for main walls of house or for porches, walks, gate-posts, etc. ALPHA CEMENT stucco mortar may be applied directly to the surface of the coarsely finished cement block with satisfying results. Such an exterior looks well and requires no painting.

Tables for Use of ALPHA CEMENT:

In addition to the table shown at the bottom of this page, the ALPHA CEMENT literature contains many other useful tables.

Directions for Placing a Stucco Coat:

Drench the masonry and cement block walls thoroughly with water, but let drain off before applying the stucco. Apply the stucco continuously in one direction, and do not let the edges dry up. Work stucco coats only to an extent that is absolutely necessary. Keep mortar coats wet for several days. Apply water as soon as each coat has hardened enough so that it will not wash. Apply the finish coat only after previous coats have been cured for at least one week. Use only wood float to prepare the finish coat for final surface finishing.

ALPHA CEMENT Literature:

Alpha Cement Dealers in nearly all populous communities will be pleased to supply contractors and property-owners with a variety of literature and Service Sheets. These show designs for scores of permanent and handsome improvements made possible through the use of ALPHA CEMENT, such as steps, porches, retaining walls, driveways, storage cellars, garages, yard furniture, tennis courts, culverts and drains, septic tanks, hot beds, cisterns, well caps, posts, pools, etc. Prominent in the list of literature is the valuable Handbook shown on this page, containing 112 freely illustrated pages, suggesting good plans and the most approved methods of building. If the reader doesn't know a nearby Alpha Cement Dealer, he should write direct to the Alpha Cement Company's nearest office for a copy of this practical Handbook.

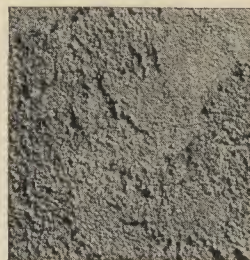
Special pamphlet on simple methods of securing high early-strength concrete with ALPHA CEMENT of standard quality also free on request.

Materials Required for 100 Square Feet of Sidewalks and Floors—for Various Mixtures and Thicknesses

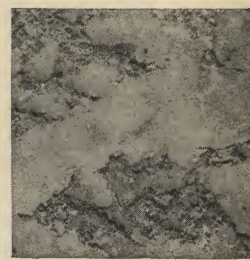
| Thickness of Course in Inches | Wearing Course | | | | Base Course | | | | | | | | |
|-------------------------------|----------------|------|--------|------|-------------|------|--------|--------|------|--------|--------|------|--------|
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| | Cement | Sand | Cement | Sand | Cement | Sand | Stone* | Cement | Sand | Stone* | Cement | Sand | Stone* |
| ½ | 2.4 | 0.13 | 2.0 | 0.15 | 6.5 | 0.48 | 0.72 | 5.2 | 0.48 | 0.77 | 4.6 | 0.43 | 0.86 |
| 1 | 4.8 | 0.26 | 3.9 | 0.29 | 8.6 | 0.64 | 0.95 | 6.9 | 0.64 | 1.02 | 6.2 | 0.57 | 1.14 |
| 1½ | 7.2 | 0.40 | 5.9 | 0.43 | 10.8 | 0.80 | 1.19 | 8.6 | 0.80 | 1.27 | 7.7 | 0.71 | 1.43 |
| 2 | 9.6 | 0.53 | 7.9 | 0.58 | 12.9 | 0.96 | 1.43 | 10.3 | 0.95 | 1.53 | 9.2 | 0.86 | 1.72 |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |

Quantities of ALPHA CEMENT are expressed in sacks, aggregates in cubic yards.

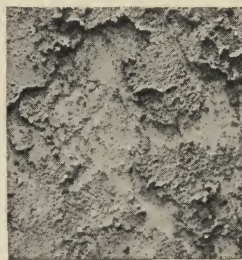
*Stone is used to include screened gravel (pebbles) or broken stone.



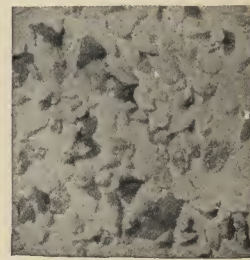
Torn float finish



Floated rough cast finish

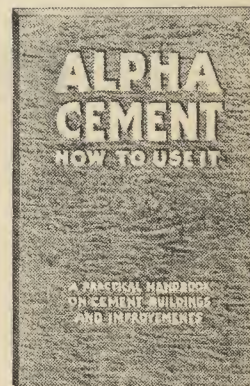


Special textural finish

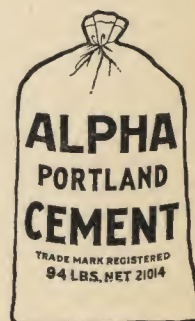


Colored rock dash finish

Four different surface suggestions easily obtainable with ALPHA CEMENT



The ALPHA CEMENT Handbook



Standard sack of Alpha Cement, containing 94 lbs. net.



For further details and literature, write to:

ALPHA PORTLAND CEMENT COMPANY

EASTON, PA., or CHICAGO, ILL.

ATLAS PORTLAND CEMENT GRAY & WHITE

Main Offices: New York ... St. Louis

Manufactured by

THE ATLAS PORTLAND CEMENT CO.

25 Broadway, New York

CHICAGO · BOSTON · BIRMINGHAM · DES MOINES · KANSAS CITY · OMAHA · PHILADELPHIA · ALBANY · JACKSONVILLE, FLA.

Atlas Portland Cement

Every home builder is interested in insuring for his house the two qualities on which Atlas national advertising is laying such stress. They are *Dependability* and *Permanence*, the true measure of quality in portland cement. That Atlas gives both consistent performance and assured permanence is strikingly demonstrated by its repeated specification for important projects by great engineering organizations.

For example, fifteen years ago New York Central Railroad, insuring—as always—safety, service, and long life, chose Atlas Portland Cement for the Grand Central Terminal and Electric Zone in New York City. Again in 1924 for the Castleton Cut-Off Bridge over the Hudson, termed by its president “one of the engineering marvels of the age”, the New York Central again specified Atlas. This repeated choice in effect counsels all who contemplate building a suburban home, a sidewalk, or a skyscraper to specify Atlas—“the standard by which all other makes are measured.” From foundation to roof covering, for anything you want to build, use Atlas.

Atlas White Portland Cement

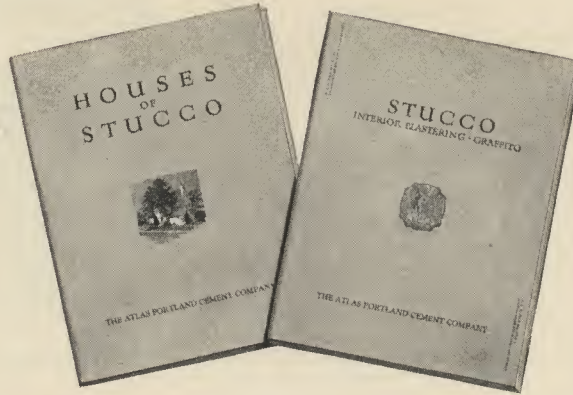
With all the high tensile strength, permanence, and economy of gray Atlas Portland Cement, Atlas White has an additional and striking advantage: it is pure white in color. Thus it offers a vastly enlarged range of artistic possibilities and unrivalled opportunity for a full use of color variety. Architects have been enabled to specify even decorative sculpture of concrete. Atlas White has been of tremendous importance in opening new vistas of beauty never before realized in cement construction.

Superior for Stucco

The great charm of stucco lies not only in its interesting surface texture but also in the purity and cleanness of its delicate shades and tints.

Atlas White Portland Cement is admirably adapted to color varieties, since it offers a perfectly neutral white base for all colors. Thus it permits effects not possible when gray cement is used.

“Houses of Stucco” is a copiously illustrated book for the home builder. It gives comparative costs, illustrates a variety of textures to suit varying types of architecture, has photographs of many model dwellings together with miniature floor plans, and even discusses the



remodelling in stucco of old houses. It is a mine of information, and is free on request.

For Interior Plastering

The recent revival of interest in Spanish and Moorish decoration has given added impetus to the vogue for texture treatment of the interior finishes. Because of the greater strength it gives, Atlas White is widely preferred. Since the beauty of most of the textures depends on the definition and sharpness of the various projections, it is highly

important that they be strong. Otherwise they are continually chipped off, and their true beauty departs.

Mortar of Atlas White Portland Cement supplies the necessary strength. In addition it is not affected by moisture or water; and may be thoroughly scrubbed with soap and water.

“Stucco—Interior Plastering—Graffito” is an informing, liberally illustrated book which discusses and describes the application of stucco, coloring, texture, and interior plastering. A concise handbook of information of great value to home builders and contractors. Write for it.

Lumnite

Frequently the need arises for extraordinary speed in construction and early use of the completed work. For such demands the Atlas Portland Cement Company offers Atlas Lumnite Cement, through an arrangement with its affiliated company, The Atlas Lumnite Cement Company.

Lumnite is not a portland cement. In 24 hours it produces concrete which exceeds the strength of portland cement concrete at 28 days.

Ask for folders giving suggestions for using.

Let Atlas help you

It matters not what you are planning to build, Atlas will appreciate the opportunity of helping you. Practically everything that can be made with cement is discussed and explained in some one of the library of building books that the Atlas Service Department has prepared. Each of these is a highly instructive and absolutely practical handbook of information on its subject. Each tells what results may be obtained and how to do the work.

For advice or suggestions on all uses of Atlas Portland Cement, gray or white; and Lumnite; or for helpful construction information on any type of concrete work, please address or call on the nearest office listed above.



THE ATLAS PORTLAND CEMENT CO.

EDISON PORTLAND CEMENT

Made by
EDISON PORTLAND CEMENT CO.
469 Fifth Ave., New York

250 Stuart St., Boston, Mass.

20 S. 15th St., Philadelphia, Pa.

"The Cement That Builds The Best"

The Product

All Edison Portland Cement is produced in one mill located at New Village, N. J. It is a cement of uniformly high quality, and has met every specification of the American Society for Testing Materials before, as well as after the specifications have been adopted. Edison Cement may be bought in either paper or cloth bags.



Edison Portland Cement is ideal for use in stucco treatment, as well as for foundations, basement floors, walks and walls.

Manufacturing Standards

The Edison Mill is, from a standpoint of productive capacity, one of the five largest in the country. Its equipment and methods are most modern and efficient. Limiting production to one large mill means that the cement is always uniform. All the raw materials go through the most modern machinery—much of it the invention of Thos. A.

Edison. Conditions throughout are standardized to assure the maintenance of one high quality. Vigilant chemical control at the mill is backed up by the work of an independent laboratory which constantly samples, tests, and analyzes the cement to check against the results obtained by the Edison force.

Preparing the Mix

Whenever Portland Cement can be used, Edison will be found safe and satisfactory. Among the common purposes are for stucco, walls, floors, sidewalks, driveways, steps and curbs. In the table below will be found mixtures and maximum size stone for various types of concrete work. At all times the aggregates—sand and stone—should be clean and well-graded. It is best to use the same measure throughout the job, so that the proportions of the different ingredients will be accurate.

Tables of Mixtures and Maximum Size Stone

| | | Max. Size Stone |
|--------|---|-----------------------|
| 1:1:1½ | Mixture for: Wearing course of two-course pavements..... | ¾" |
| 1:2:3 | Mixture for: One course walks, porch and basement floors, pavements and steps..... | 1½" |
| | Fence posts, gate posts, benches..... | ¾" |
| | Sills and lintels without mortar surface..... | ¾" |
| | Wells and cisterns, watering troughs, tanks..... | 1" |
| | Basement walls exposed to moisture..... | 1½" |
| 1:2:4 | Mixture for: Foundations for farm machinery..... | 2" |
| | Concrete work in general..... | 1½" |
| 1:2½:4 | Mixture for: Coal bins, grain bins, silo walls, and such..... | 1½" |
| | Building walls above ground..... | 1½" |
| | Walls of pit or basements..... | 1½" |
| | Base of two-course floor or pavement..... | 2" |

Mortar

| | | |
|-----|--|----|
| 1:2 | Mixture for: Wearing course of two-course walks, floors and pavements | ¼" |
| | Flower boxes | ¼" |

A 1:2:3 mixture means 1 sack (1 cu. ft.) of cement, 2 cu. ft. of sand, and 3 cu. ft. of pebbles or stone. The first figure is for cement, second for sand, etc.



An ordinary residence becomes distinctive when given the warmth and color of Edison Portland cement stucco.

Service

The building material dealer is the Edison representative in your territory. He has the best facilities to give quick service. Supporting him are the large storage bins and modern bagging and shipping equipment at the mill. Orders given at the mill are filled ordinarily within 24 hours—a feature of Edison service. The central location of the mill gives fast and direct freight routes to all points in New England and the Middle Atlantic States.

Edison in Construction

Following are a few large and well known enterprises in which Edison Portland Cement has been used to give strength and permanency to the concrete work: Yankee Stadium, New York City; Traymore Hotel, Atlantic City, N. J.; Capitol Theatre, New York City; E. F. Albee Theatre, Brooklyn, N. Y.; Miller and Rhoads Department Store, Richmond Va.; U. S. Shoe Machinery Co., Beverly, Mass.; The Shandaken Tunnel, Shandaken, N. Y.

Further Information

Our Service Department will be glad to furnish you information on the materials required for concreting a given surface of established depth. A new series of 4 booklets covering every phase of concrete work and methods of cement manufacture will be forwarded free on request.



Any design or location can be handled to best advantage with the great variety of original textures and colors offered in stucco.



For further details and literature, write to:

THE EDISON PORTLAND CEMENT CO.

469 Fifth Ave.
New York

Kosmortar and Kosmos Portland Cement

Made by

KOSMOS PORTLAND CEMENT CO.

Sales Office: Louisville, Ky.

Mill: Kosmosdale, Ky.

Products

KOSMORTAR, and KOSMOS PORTLAND CEMENT.

Kosmortar

A very smooth working cement for masonry of all kinds. Mixed with sand and water only, by hand or machine, it is ready for immediate use. No slaking. No additions. Minimum labor.



Characteristics of Kosmortar

Strength—Ample for all masonry. Makes mortar of about the same strength as a 50% mixture of portland cement and lime with much better working qualities.

Appearance—The natural color of Kosmortar is a light gray. It contains nothing that will react unfavorably on mortar colors, or cause efflorescence. Joints cut clean, giving a neat effect, and saving much labor. For practical purposes it is non-staining with Bedford stone.

Durability—Kosmortar passes the same soundness test as portland cement. Every step in its manufacture is under complete control and it may be depended upon for uniformity. Joints made with Kosmortar are water repellant to a high degree.

Set—Kosmortar is made slow setting to permit placing in the wall without retempering, which is never necessary with Kosmortar under proper management. Retempering a mason's cement sacrifices the advantages of strength, speed and labor saving that are the chief reasons for using this modern substitute for lime. It may be done but should not be, and Kosmortar is so made that it is not necessary. The set is accelerated somewhat for winter shipments.

Package—Kosmortar is packed only in multi-wall paper sacks which give the maximum protection and allow no refilling. A sack weighs 75 lb. The unit of sale is a barrel of 300 lb., which means four sacks. Directions for use on each sack.

Amount Required—This varies with the sand used and the ideas of the various bricklayers. A good average is 1 barrel (4 sacks) of Kosmortar to 1000 brick. In tests as many as 1284 brick have been laid (slushed joints) with a barrel of Kosmortar without detracting from the strength or plasticity.

Opinions of Kosmortar

Architect—"Kosmortar joints are hard and durable, providing an excellent bond."

JOSEPH AND JOSEPH, Architects, Louisville, Ky.

Brick Manufacturer—"We believe Kosmortar is the best of the mason's cements and are especially enthusiastic about its performance with mortar colors in connection with our face brick." DECATUR BRICK COMPANY, Decatur, Ill.

Contractor—"Our brick foremen believe that your product is the best of the patented cement mortars from the standpoint of economy and fast brick laying. The masons particularly like Kosmortar because of the ease of handling, and our experience with it on numerous jobs justifies their belief." THE MIDDLE STATES CONSTRUCTION COMPANY, Columbus, Ohio

Report of Kosmortar Tests

(1) Made by Robert W. Hunt & Co., Chicago, Ill., from sample received March 23, 1923.

Soundness O.K.

Time of Setting:

Initial 6 hr. 00 min.
Final 17 hr. 30 min.

Fineness:

Passing 100 mesh.....95.80%
Passing 200 mesh.....81.40%

Tensile Strength (1 part Kosmortar, 3 parts sand):

Average 7 days..... 70 lb. per sq. in.
Average 28 days.....155 lb. per sq. in.

(2) Made by H. C. Nutting Co., Cincinnati, Ohio, from sample received February 20, 1924.

Compression Strength (1 part Kosmortar to 3 parts sand):

28-day test.....1376 lb. per sq. in.

Tests of Kosmortar along with other mortars for working qualities, color and strength, are welcomed.

Kosmos Portland Cement

Many twenty-year old buildings of all sorts prove its durability. It responds exceptionally well to modern methods of concrete making for high early strength.

In July, 1927, a piece of roadway near Kosmosdale, required for immediate use, was laid with Kosmos cement, using a 1: 2: 3 mix and 5 gal. of water to a sack, giving a 1-in. slump. In 21 hours after laying, loaded trucks of a gross weight of 11½ tons were run over this roadway and have been using it ever since without signs of failure.

Cylinders of this concrete gave strength in compression of 1256 lb. per sq. in. in 24 hours.



For further details and literature, write to:

KOSMOS PORTLAND CEMENT COMPANY, Louisville, Ky.

Badger State Cement

Manufactured by
MANITOWOC PORTLAND CEMENT CO.

Manitowoc, Wisconsin



Trade Mark

Permanent Beauty for Home Construction

To build a home of portland cement stucco is less expensive than other stuccos, because of the general distribution of the materials composing it. Portland cement, sand and water are everywhere available. For a beautiful home use portland cement stucco made of BADGER STATE cement. Its strength and uniformity make it adaptable for a perfect stucco job, which is imperishable.

Examples of stucco created in the middle centuries are in use today and stucco properly applied, will withstand the ravages of the elements. In selecting portland cement stucco for your home you are *not* experimenting with an unknown material, because portland cement is made according to definite specifications standardized by the United States Government. BADGER STATE cement more than meets these specifications.

Other Home Uses for Portland Cement

In addition to building your home of stucco you have use for BADGER STATE cement in making sidewalks, floors, driveways, garages, garden and lawn decorations, and any place where you want permanent construction.

BADGER STATE Service

Made in the most up-to-date cement mill in this territory and located at a point to serve by rail or water without delays due to lack of cars, BADGER STATE is distributed through your local building supply


Concrete for Permanence



Observe the homelike effect shown in the above detail.

dealer and shipments are made direct from our plant over the shortest routes, so that adequate stocks can be maintained at all times by your home dealer.

Write us for Specifications on portland cement stucco application. It's part of our service.

 For further details and literature, write to:

MANITOWOC PORTLAND CEMENT CO., Manitowoc, Wis.

PENN-DIXIE CEMENTS

PENNSYLVANIA DIXIE-ROYAL



A
PENN-DIXIE
CEMENT



A
PENN-DIXIE
CEMENT

DEXTER



A
PENN-DIXIE
CEMENT

CLINCHFIELD



A
PENN-DIXIE
CEMENT

PENN-ALLEN



A
PENN-DIXIE
CEMENT

Nazareth, Pa.
Penn-Allen, Pa.

SEVEN PLANTS
Bath, Pa.
Richard City, Tenn.
Portland Point, N. Y.

Kingsport, Tenn.
Clinchfield, Ga.

Combined Annual Capacity, 50,000,000 Bags

| | |
|-----------------------|-------|
| FOR JOB-DRY MATERIALS | |
| BAGS OF CEMENT | 7.60 |
| WATER-GALS. PER BAG | 5.34 |
| CU YDS. OF SAND | .43 |
| CU YDS. OF STONE | .87 |
| PROPORTION (MIX) | |
| BAGS OF CEMENT | 1 1/2 |
| WATER-GALS. PER BAG | 4.34 |
| CU YDS. OF SAND | .47 |
| CU YDS. OF STONE | .84 |

CONCRETE

FOR
PERMANENCE

PENN-DIXIE CEMENTS

FOR
SERVICE-SAFETY

BUY AT
PENN-DIXIE SIGNS

| | |
|---------------------|---------|
| 1.80 | |
| BAGS OF CEMENT | 1 1/2 |
| CU YDS. OF SAND | 4 |
| CU YDS. OF STONE | MIXTURE |
| THICKNESS IN INCHES | |
| BAGS OF CEMENT | 1 1/2 |
| CU YDS. OF SAND | 5 |
| CU YDS. OF STONE | MIXTURE |

CLEAN GRADED SAND AND STONE OR PEBBLES 1/4" TO 2 1/2" IN QUANTITIES AS GIVEN ABOVE ARE REQUIRED FOR:

ONE CU. YARD STRAMMED CONCRETE

ONE BAG OF CEMENT = 1 CU. FOOT
ONE BAG OF CEMENT WEIGHS 94 LBS. NET
ONE BARREL OF CEMENT = 4 BAGS

QUANTITIES ABOVE ARE THOSE REQUIRED FOR:

100 SQ. FT.
OF WALL OR FLOOR
OF THICKNESS SHOWN

WITH PROPER MIXING, CURING AND TEMPERATURE CONDITIONS, WATER AS SHOWN PER BAG OF CEMENT (AT LEFT) WILL GIVE UNIFORM STRENGTH. THE COMPRESSIVE STRENGTH OF SUCH CONCRETE AT 28 DAYS IS APPROXIMATELY 3500 LBS. FOR 8 GALS., 1800 LBS. FOR 7 1/2 GALS., AND 1000 LBS. FOR 6 GALS. OF WATER PER BAG. DECREASE WATER FOR STIFFER MIXTURES. DECREASE AGGREGATE FOR MORE WORKABLE MIX. REMEMBER, ADDING WATER KILLS STRENGTH. YOU CAN SAVE MONEY ON LARGE WORK BY DESIGNING MIX FOR MATERIALS TO BE USED. DATA ON THIS RULE ARE FOR AVERAGE CONDITIONS.

COPYRIGHTED 1927 CRUKER MFG. CO., CHICAGO, U. S. A.

ACTUAL SIZE REPRODUCTION OF CONCRETE AND LUMBER SCALE

ASK FOR ONE—THERE IS NO CHARGE

PENNSYLVANIA-DIXIE CEMENT CORP.

131 EAST 46TH STREET
New York City

Other Offices Throughout the East and South

JAMES BUILDING
Chattanooga, Tenn.

MEDUSA WHITE

Manufactured

THE SANDUSKY
The Engineers' Bldg.,



PORTLAND CEMENT

by

CEMENT COMPANY
Cleveland, Ohio

Products

The Sandusky Cement Company is one of the pioneer makers of Portland Cement in the United States. For thirty-six years the name Medusa has been known to the trade.

Medusa Gray Portland Cement is sold in a limited territory. Medusa White Portland Cement is sold and used all over the United States, while thousands of barrels are exported annually. Other Products include Medusa Integral Waterproofing and Medusa Cement Paint (see page 433).

Medusa White Portland Cement

Wherever beauty as well as permanence is required in concrete work, Medusa White Portland Cement should be specified. It is a standard Portland Cement, meeting all of the tests and requirements of standard Gray Portland Cement. It is mixed and handled in exactly the same manner as any other Portland Cement.

Colored Concrete

When color effects are wanted, Medusa White Portland Cement furnishes a pure white base. Light tints or strong colors can be obtained by the use of colored aggregates or by the use of mineral oxides.

Uses Medusa White Portland Cement

Medusa White Portland Cement is used at a great many points in home construction. Chief among these is the finish coat of stucco work. For this work Medusa Waterproofed White Portland Cement is recommended. Properly applied it will give you a beautiful, permanent surface that will never stain nor discolor due to the penetration of water or moisture. A catalog giving complete specifications for Waterproofed



This beautiful little stucco home at Tacoma, Washington, was finished with Medusa White Portland Cement. Messrs. Sultan, Whitney & Dugan, Tacoma, were the architects.

Portland Cement Stucco will be furnished you upon request. It will serve as a guide for your contractor and plasterer. Other uses for Medusa White Portland Cement include cement plaster coat for basement interior or for the interior finish of rooms; cast-stone trim for lintels, doorways, etc.; concrete pre-cast mantels and concrete floor tile; finishing shower baths and

swimming pools and cement mortar for laying up masonry. It is used also in the construction of driveways, especially for the making of concrete ribbon driveways. The use of Medusa White Portland Cement for mortar is based largely on its non-staining qualities and we will be glad to furnish you with complete information on the use of Medusa White Portland Cement for mortar.

Plain and Waterproofed

Medusa *plain* White is our standard White Portland Cement. Medusa *waterproofed* White is the plain white plus the correct amount of Medusa Integral Waterproofing. This is ground into the cement during the process of manufacture and insures permanently waterproof concrete work. Medusa Waterproofed White Portland Cement is the only Waterproofed White Portland Cement made in this country. It should be used wherever dampness or water will come into frequent contact with the finished job.

Complete Information

Our space here is too limited to permit us to go into any details regarding the use of Medusa White Portland Cement. However, we do have catalogs which give mixes and specifications. Attractive illustrations of houses from all over the United States will interest the prospective home builder.



For further details and literature write to:

THE SANDUSKY CEMENT COMPANY

THE ENGINEERS BLDG.
CLEVELAND, OHIO

AMERICAN FACE BRICK ASSOCIATION

2198 City State Bank Building, Chicago, Illinois



A. F. B. A. Five-Room House, No. 505
As built at Lexington, Massachusetts



A. F. B. A. Six-Room House, No. 102
As built at Atlanta, Georgia

Products

Face Brick of every variety of surface texture and color tone manufactured by the members of the *American Face Brick Association*.

Color, Permanence, Economy

Colorful walls, varied and everlasting, mark the Face Brick home. The widest variety of color tones and wall textures is provided to meet the new standards of style and beauty. Since the permanence and final economy of Face Brick are unquestioned, it offers the best investment as well as the most in beauty.

Wide Awake Contractors and Dealers

Will do well to cash in on the growing popularity of Face Brick construction. The vogue of beautiful moderate-priced Face Brick homes is growing because of their genuine merits.

One Beautiful Brick House Sells Many More

There is a wide field of development for the Contractor and Builder. One attractive Face Brick house in a community will sell a dozen more for the builder.

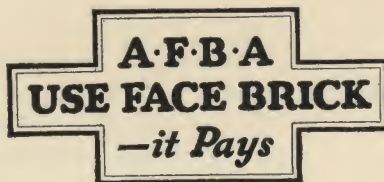
Dealers should form a connection with a member of the Association and secure a part of this increasing business.

Special Sizes and Special Shapes

In addition to standard sizes, Face Brick can be made to order in special shapes and sizes to meet unusual or any desired condition, when proper architectural details are furnished and sufficient time given.

Helpful Service

The Association issues many valuable booklets and other literature that Contractors, Builders and Dealers will find helpful. They are full of worth-while suggestions and reliable data on Face Brick construction. The more important booklets are listed opposite; complete list sent on request.



"The Story of Brick," 64 pages, is an attractive booklet with beautiful illustrations of modern homes. It discusses such matters as Comparative Costs, Basic Requirements in Building, the Extravagance of Cheapness, and kindred subjects. Sent free.

"The Home of Beauty" shows 50 designs of 6-room Face Brick houses, selected from 350 designs submitted in a nation-wide Architectural Competition. Complete working drawings, etc., available at nominal prices. Booklet sent for 50 cents.

"Face Brick Bungalow and Small House Plans," a series of booklets which show 128 designs of Face Brick bungalows and small houses which are unusual and distinctive in design, economical to build and convenient in floor plan. Complete working drawings, etc., available at nominal prices. These plans issued in four booklets showing 3 to 4-room houses, 5-room houses, 6-room houses, and 7 to 8-room houses. The set for one dollar; any one booklet, 25 cents.

"Two Apartment and Double House Plans in Face Brick" shows 14 attractive designs of Duplex and Double Houses. Plans available at nominal cost. Booklet sent for 25 cents.

"The Home Fires" tells the best method of fireplace designs, for which plans may be obtained for one dollar each. Also shows 25 halftones of designs by well-known architects which will be helpful to the Contractor who wishes to plan his own fireplace. Booklet sent for 25 cents.

"A Manual of Face Brick Construction," a 116-page book on the three types of Face Brick wall construction. All the information a Contractor needs for building Face Brick houses and useful to anyone building a home. Sent for one dollar.

"A New House for the Old," a valuable booklet on veneering old frame and stucco buildings, with many illustrations and full information. Sent free.



For further details and literature, write to:

AMERICAN FACE BRICK ASSOCIATION

2198 City State Bank Bldg.
Chicago, Ill.

AMERICAN FACE BRICK ASSOCIATION—Cont'd.

FACE BRICK SPECIFICATIONS

- 1—**Face Brick**—The following surfaces shall be faced with (state manufacturer's or dealer's name and trade designation).
- 1a—**Face Brick (Alternate)**—The following surfaces shall be faced with face brick (state size) selected by the architect..... Estimate brick at.....per M delivered on the job, or F.O.B. at..... If price exceeds estimate, contractor will be entitled to an extra; if price is less, owner will be entitled to a credit. Extra or credit shall be based on shipping invoices.
- 2—**Window Sills**—All window sills shall be (state name of brick if not same as facing) face brick, set on a slope of at least 1 in. in 1 ft., and projected at least 1 in. beyond wall. Use 1-2 cement mortar with smooth finished joints.
- 3—**Parapets and Fire Walls**—All parapets and fire walls above flat roofs shall be of (state name of brick if not same as facing) face brick laid in 1-2 cement mortar.
- 4—**Copings**—All copings shall be of (state name of brick if not same as facing) face brick set as per drawings in 1-2 cement mortar, with smooth finished joints.
- 5—**Cement Mortar**—All mortar for face brick work in (state part of work) shall be composed of 1 part Portland Cement to 2, 2½, or 3 parts sand (state kind).
- 6—**Lime Mortar**—All mortar for face brick work in (state part of work) shall be composed of 1 part lime putty or hydrated lime to 2, 2½, or 3 parts sand (state kind).
- 7—**Cement-Lime Mortar**—All mortar for face brick work in (state part of work) shall be composed of 1 part Portland Cement, 1 part lime putty or hydrated lime, and 6 parts of sand (state kind). No cement or cement-lime mortar that has set on the boards overnight is to be retempered and used.
- 8—**Mortar Color**—All mortar for face brick in (state part of work) shall be mixed with (state amount, brand, and color) mortar color per thousand brick.
- 9—**Laying**—(a) All brick shall be laid on a full bed of mortar (for joints over ¼ in.).
or (b) All brick (with joints ¼ in. or less) shall be thoroughly buttered.
All brick (except with buttered joints) shall be shoved into place and all vertical joints thoroughly filled.
In (state parts of wall) the space between successive tiers of brick shall be (state whether slushed or left unslushed). Vertical joints, up and down the wall (in all bonds except running and common) shall be plumbed.

When temperature is below freezing or likely to fall below during the night, all materials including water, shall be heated before using.

No brick with ice or snow on them and no frozen mortar shall be used. The mixing of salt in the mortar to check freezing is absolutely prohibited. At no time shall the face brick be carried more than approximately six courses above the backing, and both shall be brought to a level every night and well covered with building paper, planks, or the like to protect against damage by the elements.

- 10—**Joints**—All brick work in (state part of work) shall be laid with (state width and kind of mortar joint).
- 11—**Bond**—All face brick in (state part of work) shall be laid in (state kind of bond).

Masonry Construction—(a) Face brick shall be bonded to backing every.....course with full headers.
or (b) Face brick shall be bonded to backing with heavy (state kind) galvanized iron wall ties.

Veneer Construction—(a) Face brick veneer shall be bonded to frame wall with 30-d nails driven through the sheathing, slightly above the level of the brick, into each stud approximately every foot in height and bent down so as to extend level into the joint at least one inch.

or (b) Face brick veneer shall be bonded to frame with heavy (state kind) galvanized iron wall ties securely nailed to the sheathing 16 inches apart, every foot in height.

- 12—**Fireplaces**—The fireplace shall be faced with (name) brick laid as per drawings, with (state kind, size, and color) joints in (state kind) mortar. The hearth shall be of (name) brick laid as per drawings in a 1-3 cement mortar, colored to match the brick, with a flush ¼ in. joint finished smooth. Back hearth and lining shall be of refractory brick laid as per details, with a narrow joint in fire clay.
- 13—**Cleaning and Pointing**—When plasterer has left building, all surfaces of face brick shall be thoroughly cleaned down by applying a 5 per cent solution of muriatic acid with a stiff wire brush to remove all spots and stains, and then rinse with clean water. All defective joints shall be carefully pointed up at this time.

- 14—**Brick Walks, Terraces, etc.**—(a) Upon a cushion of sand 1 in. thick shall be laid (name) face brick, placed (state on edge or flat) with (state size) joints, in pattern shown on plans. Joints shall be filled with a 1-2 cement grout. Before any surplus grout has set too hard on the surface of the bricks it shall be thoroughly cleaned off with a slightly wet stiff brush.
or (b) Joints shall be filled with dry sand swept into place and wet down until joints are thoroughly filled.

Examples of Face Brick Bonds

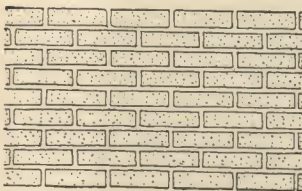


Fig. 1. Running or Stretcher

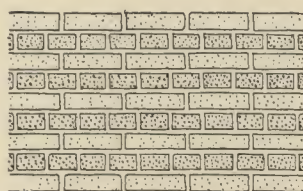


Fig. 2. English

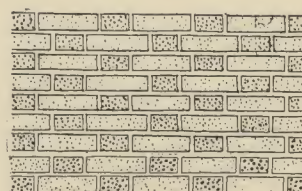


Fig. 5. Flemish

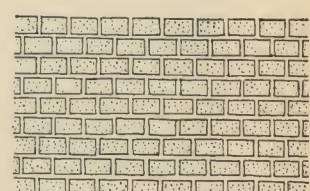


Fig. 6. Header

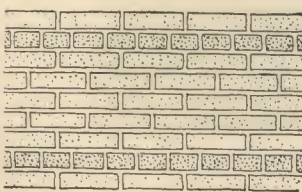


Fig. 3. Common

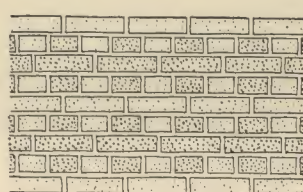


Fig. 4. English Cross or Dutch

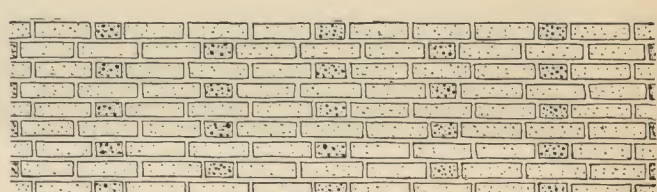


Fig. 7. Three-Stretcher Garden Wall



For further details and literature, write to:

AMERICAN FACE BRICK ASSOCIATION

2198 City State Bank Bldg.
Chicago, Ill.

44 YEARS
EXPERIENCE
IN MAKING
BRICK

"BELDEN BRICK"

Made by
THE BELDEN BRICK CO.
CANTON, OHIO

PRODUCTION
90,000,000
BRICK
ANNUALLY



No. A-35—BLEND. CREAM FLUSH JOINT—FLEMISH BOND

The selection of Face Brick for a home is one of the most important decisions the building contractor and home owner are required to make. On the brick selected depends very largely the appearance of the finished house. Mistakes cannot be remedied once the bricks are in the wall—therefore choose wisely.

Do not be too greatly influenced by the cost of brick per 1,000—the best is nearly always the cheap-

est in the end and it costs more to lay poor bricks than good ones. You will likely find that "Belden Brick" cost little if any more than ordinary brick laid in the wall and they are worth a lot more.

Bear in mind, also that additions are frequently made to homes and be sure that you buy brick which can be matched at any future time. We are frequently called on to furnish Belden Brick to match bricks we sold years ago, and can always do so.



No. 91-F—SMOOTH GRAY RAKED—FLEMISH BOND



For further details and
literature, write to:

THE BELDEN BRICK CO., Canton, Ohio

44 YEARS
EXPERIENCE
IN MAKING
BRICK

"BELDEN BRICK"

Made by
THE BELDEN BRICK CO.
CANTON, OHIO

PRODUCTION
90,000,000
BRICK
ANNUALLY



Nos. 100 to 107-F—MINGLED WHITE FLUSH JOINT—RUNNING BOND

To develop the color ranges, textures and perfection in form and size that you find in Belden Brick requires experience as well as superior clays and the most modern equipment. Belden Brick have been made for 44 years and the resulting quality is yours without additional cost. An annual production in excess of 90,000,000 Face Brick means prompt shipment and the lowest price consistent with high quality.

The panels shown on this page and opposite page are merely a few examples of the unlimited shades and textures obtainable in Belden Brick. We can furnish

Belden Brick in any Straight Shade, or Mingled Shades, and in any desired texture.

Write us for name of the dealer who handles Belden Brick in your territory. You will find him a helpful man to know, and to confer with regarding your Face Brick requirements. He can tell you the kind of bond and mortar that will look best with brick of various shades and textures and can offer suggestions that will result in beautiful and harmonious masonry—masonry that will be a credit to yourself and a source of satisfaction to you for all time to come.



No. 43-F—BLACK RAKED JOINT—RUNNING BOND



For further details and
literature, write to:

THE BELDEN BRICK CO., Canton, Ohio

VELVE-TEX

Face Brick for Every Type of Architecture

Manufactured by

THE CANTON BRICK & FIREPROOFING COMPANY

New Philadelphia, Ohio



Products

Our brick are made from the highest grade Ohio shale in 62 shades and color combinations and three standard textures, Smooth, Matt and Rug. Our careful methods of manufacture and inspection of the finished product insure that each brick shipped to our customers is perfect in finish and color and standard in size.

From the products listed below, you can select a brick that will provide richness and distinctive beauty for any type of architecture whether it is a home or office building.

Velve-TEX Reds

The texture of Velve-TEX is different—a deep re-rolled horizontal Matt, that gives the same soft, velvety appearance in any position in the wall. Velve-TEX is produced in a full range of mingled shades, a combination of gunmetal blacks, blues, browns, greens, tans and reds, each individual shade blending perfectly with the other. This produces the full effect of the forest after the leaves first turn in the fall. Also, in five shades of selected red graduating from a dark tone to a light tone. Velve-TEX bricks are adaptable for practically every home design.

Robertsville Reds

The mechanically perfect vertical scoring and clean sharp edges make these brick stand

out above all others to those who demand superior quality and workmanship. The rich red color is thoroughly burned in and the texture gives proper shadow effects making these bricks suitable for every kind of brick work, whether it be for foundations or the complete home.

Midvale Buffs and Grays

Midvale brick are made from deep mined fire clay procured in the Uhrichsville district, recognized as the purest fire clay in existence. Midvale Buffs are not the so-called ivory bluff, but a rich cream color. The soft shadows produced by the light scoring entirely remove any glaring effect. Midvale greys are produced in a semi-enamel or terra-cotta effect.

Midvale Iron Spots

The peculiarity of the shades produced in the Iron spots gives to the builder a brick that is distinctive. They are furnished in light brown, medium and light orange tones. Midvale Ironspots are smooth, regular in size and straight mechanically. The specks on the surface of the brick are natural iron fused from the brick itself and produces shades as of a golden sunset.

Newcomerstown Buffs and Greys

Home builders who demand clear rich colors and the best quality brick obtainable will

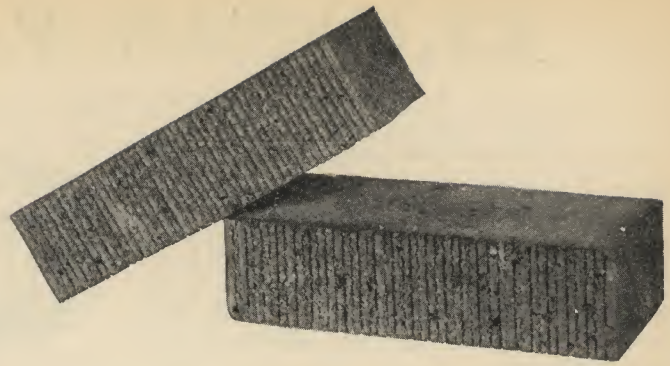


For further details and literature, write to:

CANTON BRICK & FIREPROOFING COMPANY

NEW PHILADELPHIA
OHIO

like Newcomerstown Buffs and Greys. Produced in smooth, vertical and Matt textures readily adaptable for both interior and exterior use. The Buffs are a light ivory color while the greys are in a medium color suitable for the builder who desires something between the reds and buffs.



Shipping Facilities

Over 70,000,000 brick are produced annually in our centrally located plants at Canton, Robertsville, Midvale and Newcomerstown. A complete stock of all shades, textures and designs are ready at all times for immediate shipment with speed and reliable service.

If you are planning a home, write us today for samples, prices and the name of the Velve-Tex dealer in your city. From this complete line of quality brick, in varied designs and colors, you will find one that will fit exactly into your plans for both interior and exterior work.

Velve-Tex Dealers in the Larger Cities

| | |
|-----------------------------------|-----------------------------------|
| Atlanta, Ga..... | The B. Mifflin Hood Brick Company |
| Boston, Mass. | |
| 77 Summer St..... | The Parry Brick Co. |
| Buffalo, N. Y. | |
| Main St..... | Seneca Clay Co. |
| Chicago, Ill. | |
| 5812 S. Robey St..... | The Reiner Material Co. |
| Chicago, Ill. | |
| Builders Building..... | The Howard-Matz Brick Co. |
| Cincinnati, Ohio | |
| 600 So. Ohio Bank Bldg..... | Builders Material Co. |
| Cleveland, Ohio | |
| Keith Building..... | The Mars Company |
| Cleveland, Ohio | |
| 8848 Broadway..... | The Bowen Brick & Supply Co. |
| Columbus, Ohio..... | Gaddis Harbison Brick Co. |
| Detroit, Mich. | |
| 710 Farwell Bldg..... | The Puritan Brick & Tile Co. |
| Grand Rapids, Mich. | |
| Michigan Trust Bldg..... | The Lincoln Brick Co. |
| Louisville, Ky..... | The R. B. Tyler Co. |
| Milwaukee, Wis. | |
| 137 2nd St..... | The Milwaukee Face Brick Co. |
| New York City | |
| 130 W. 42nd St..... | O. W. Ketcham |
| New York City | |
| 2413 Third Ave..... | Face Brick Sales Corp. |
| Niagara Falls, N. Y. | |
| Gillette Court..... | Concrete Stone & Coal Co. |
| Philadelphia, Pa. | |
| 16th and Arch Sts..... | The Central Brick & Tile Co. |
| Pittsburgh, Pa. | |
| Brushston Ave. and Thomas St..... | A. Q. Starr Co. |
| Rochester, N. Y. | |
| 85 Palm St..... | Keystone Builders Supply Co. |
| Syracuse, N. Y..... | Syracuse Wall Plaster Co. |
| Washington, D. C. | |
| 907 15th St., N. W..... | Chas. S. Salin & Co. |



For further details and literature, write to:

CANTON BRICK & FIREPROOFING COMPANY NEW PHILADELPHIA OHIO

CLINTON FACE BRICK

This Distinctive Brick Will Lift Your Home Far Above the Ordinary

For many years Clinton Face Brick has been well and favorably known to home builders in most parts of Eastern United States. One of the chief reasons for this preference is the wide range of color selections available in this line. This wealth of color is due to the fact that these face bricks are manufactured from the world famous Sugarcreek clays. This combined as it is with the fact that the Finzer Brothers plant is one of the few in the country equipped to mix and burn fire and shale clay, gives the Clinton Bricks an amazing range of beautiful tones. Thus the enormous production facilities plus the natural advantages of the location of Finzer Brothers Clay Company insures the home owner of a most distinctive brick at a very reasonable cost.



When you build with Clinton Face Brick you build for all time. You can forget such maintenance costs as painting and the ordinary expensive repairs necessary in other types of dwellings. The home that is cozy summer and winter, is ever attractive in appearance, always holds a high resale value, and is a constant source of pride to its owner, is the Clinton Face Brick home. Why take a chance on the permanent beauty of your home when you can secure at such small additional first cost a genuine Clinton Face Brick home? Shown below are eight panels reproduced in their natural colors which will give you some idea of the effects it is possible to secure through the use of this remarkable brick. These are only 8 of the 41 Clinton Face Brick colors.



Shade 230 Ivories, Uniform



Shade 330 Light Ivory



Shade 390 Dark Buffs



Shade 455 B & E Mixture



Shade 455 A & D Mixture (Flemish Bond)



Shade 440 Dark Red



Shade 145 Extra Dark Red



Shade 455 Full Range



For further details and literature, write to:

THE FINZER BROS. CLAY CO.

SUGARCREEK
OHIO

HOME BUILDERS CATALOG

See Next Page

FORESTBLEND FACE BRICK



The New Textured Brick For Homes

Forestblend Brick of the Clinton Face Brick line is distinctively new in both texture and color range. Where it is used deep reds, dark or light browns, tangerines, greens and many other colors can be secured. This brick has been quite suitably named "Forestblend" because it contains in its line all the wondrous natural tints of a gorgeous autumn leaf. And this color is burned in to last for all time. It need never be painted to freshen its appearance. Nor repaired frequently as do frame and stucco houses. Brick is a product of fire and cannot be burned. Water has no effect on its lovely color. Weather cannot rust or decay it. Age only mellows its tone to give a deeper and more satisfying effect. Brick is the building material of the ages. Of all face brick none is more beautiful in texture or more abundant in natural coloring than Forestblend, the new addition to the Clinton line.

Forestblend Colors

455A—Browns

Blues

455B—Dark Tangerines

455C—Greens in range

455D—Reds and red hearts

455E—Light tangerines

The texture of Forestblend is secured by a special patented process in manufacture. It has all the beauty of a carefully hand made brick and yet it sells at a very low price. For the home owner who wishes for something entirely out of the ordinary and something which reflects his own distinctive taste, Forestblend is the answer. From the very first, Forestblends have been recognized by architects, contractors and home owners alike as a truly artistic brick. Its acceptance was immediate and unequivocal. Our kilns have never yet been able to produce more of these bricks than there is a demand for. Such instantaneous success and complete approval could only result where the product was one of exceptional merit. Forestblend may be obtained in colors listed. There are some three to five shades of each of these major colors. Forestblend known as Shade 455 of the Clinton Face Brick line will permit the builder to effect practically any color

scheme desired. That is accomplished by eliminating certain shades and substituting others. This additional service is given without extra charge by our Finzer representatives. There are Forestblend dealers in all parts of Eastern United States. The name of the one nearest you will be furnished upon request. Write Finzer Bros. Clay Co., Dept. HB, Sugarcreek, O. We promise you a prompt answer.



For further details and
literature, write to:

THE FINZER BROS. CLAY CO.

SUGARCREEK
OHIO

"GREENDALE" FACE BRICK

Manufactured by
THE GREENDALE BRICK COMPANY

General Offices: LOGAN, OHIO

DISTRIBUTORS

ATLANTA, GA., B. Mifflin Hood Brick Co.
BUFFALO, N. Y., John H. Black Co.
CHICAGO, ILL., Wisconsin Lime & Cement Co.
CINCINNATI, O., Cincinnati Builders Supply Co.
CLEVELAND, O., Cleveland Builders Supply & Brick Co.
DETROIT, MICH., Frederic B. Stevens, Inc.

KANSAS CITY, MO., Nicholson Clay Products Co.
MILWAUKEE, WIS., Wisconsin Face & Fire Brick Co.
NEW YORK, N. Y., O. W. Ketcham
PHILADELPHIA, PA., O. W. Ketcham.
PITTSBURGH, PA., Martin Brick Co.
ST. LOUIS, MO., McEwing & Thomas Clay Products Co.

WASHINGTON, D. C., O. W. Ketcham
and in all leading cities

Product

A complete line of Face Brick sold under the trade name "Greendale." Suitable for every type of construction from the simplest bungalow to the most elaborate office building or public structure.

Characteristics

"Greendales" are made from clays of unusually high and uniform quality, mined on our own properties. "Greendales" are thoroughly burned, vitrified, and retain their original beauty. Age and weathering only serve to enhance their beauty. They can be obtained in an unlimited variety of color tones ranging through various shades of red, buff, brown and gray. "Greendale" brick are assorted in uniform shades and can be blended in any percentage. The popularity of "Greendale" Brick is widely recognized because of their distinctive texture and wonderful color harmony.

"Greendale" Rug Brick

The texture of the "Greendale" Rug when laid in a wall gives the appearance of the soft and alluring color tones of a Turkish or Persian rug.

Shades—No. 72 Light Ivory; No. 74 Cream; No. 76 Light Buff; No. 78 Medium Buff; No. 80 Dark Buff with pinkish cast; No. 86 Flashed Grayish Brown; No. 88 Light Brown, tan cast; No. 90 Medium Brown; No. 92 Dark Brown; No. 94 Gun Metal.

"Greendale" Semi-Smooth

This is a new and unusual texture and is the result of much study and experiment to meet the insistent demand for a brick in the large cities which will resist the effects of smoke and dust and still produce a light wall effect. The texture is sufficiently rough so as not to give a wall the glaring effect of a smooth brick, but still removes the objection which many architects and owners feel toward the use of rough texture brick.

"Greendale" Red Rug Brick

Manufactured from selected shale and burned to a rich Burgundy Red. Manufactured for blending purposes only and not offered for sale as a straight line.

"Greendale"

TRADE MARK

FACE BRICK

"Greendale" Blends

Pontiac Pot-Pourri—A combination of gray, brown, gun metal and red Rugs; especially appropriate for certain types of churches, apartments and residences. Illustration on opposite page.

Seville—A blend of "Flashed" grayish brown shades which can be readily adapted to Spanish types of architecture. This blend produces a light wall effect, yet the colors are neutral to dust and dirt. Illustration on opposite page.

561 Full Range—A blending of all clear burned Rug shades running from light Ivory to dark Buff. Natural Cement or Buff mortar color is very appropriate with this blend. Illustration on opposite page.

563 Full Range—A blending of all "Flashed" Rug shades running from gray to gun metal. Effective when laid in natural cement or double strength chocolate mortar with raked joints. Color card on request.

261 Full Range (Semi-Smooth)—Is furnished in the same range of color as the 561 Full Range. (See color illustration opposite page.) However, this color range can be modified by leaving out the lighter or darker shades so as to give a more uniform effect.

262 (Semi-Smooth)—Is a blend of gray and grayish brown similar to the Seville blend. See illustration opposite page.

Plant and Facilities

"Greendale" Face Brick is manufactured at Greendale, Ohio, in one of the largest individual plants in the country. The tract consists of about 2,200 acres containing deposits of rich clay ideally adapted to the manufacture of superior face brick. A tunnel kiln recently completed gives a capacity of about 32,500,000 bricks annually. Large production and central location insure prompt and efficient service.

Information

"Greendale" distributors will be found in the principal cities where displays of brick may be seen and literature obtained. Samples are also on display at the Architects Samples Corporation, New York City. Inquiries addressed to our general offices at Logan, Ohio, will receive immediate attention. Samples and color cards on request.



For further details and
literature, write to:

THE GREENDALE BRICK COMPANY, Logan, Ohio

"GREENDALE" FACE BRICK—Continued



"Greendale" 561 Full Range

A wall of this shade is a study in masonry with every harsh feature common to other light brick eliminated
The same colors are produced in Semi-smooth texture



"Greendale" Seville

A blend of flashed, grayish brown shades, especially adapted to Spanish types of architecture



"Greendale" Pontiac Pot-Pourri

The soft, mellow color tones of Pontiac Pot-Pourri give to the building a quiet elegance and refinement



For further details and
literature, write to:

THE GREENDALE BRICK COMPANY, Logan, Ohio

FACE BRICK by METROPOLITAN

Largest Brick Manufacturer in the World

Operating Eight Plants in Canton Ohio, Minerva, Ohio, Bessemer, Pa., Olean, N. Y.

MEMBERS OF THE AMERICAN FACE BRICK ASSOCIATION

PRODUCTS

METRO Face Brick
METRO Common Brick
Hollow Building Tile



PRODUCTS

METRO Paving Brick
METRO Vitrified Floor
System for Trickling
Filters

FACE BRICK FOR EVERY NEED

METRO MATTS---Two distinctive textures in brilliant colors from red to black.

METRO VERTEX --- Mechanically perfect in seven colors from red to black.

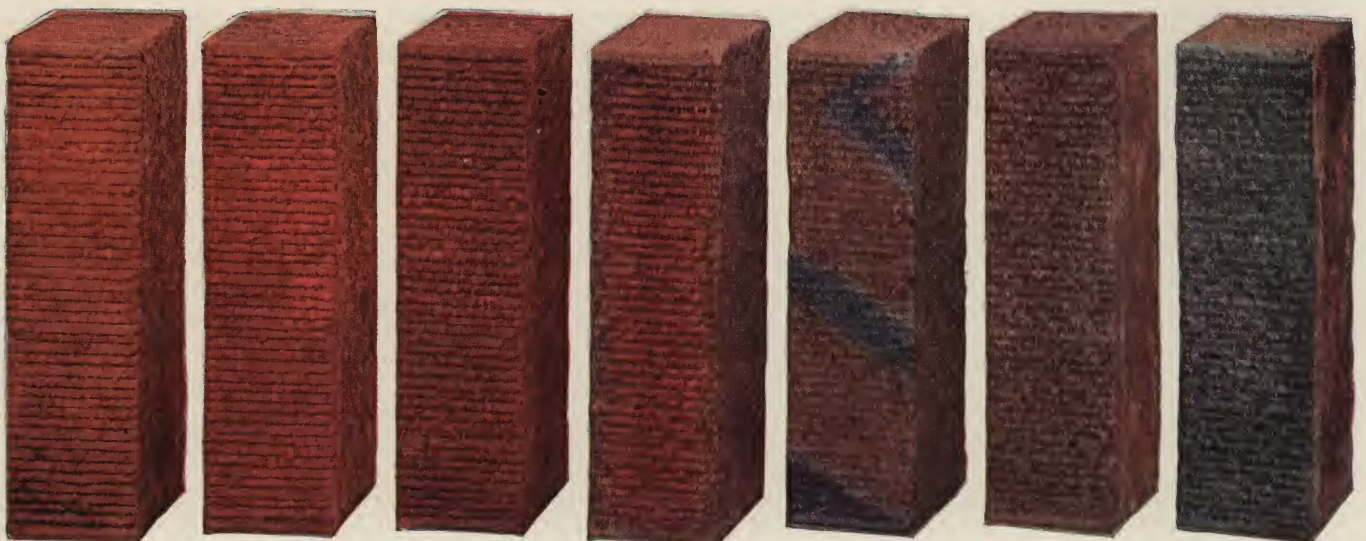
METRO COLONIALS --- Smooth face brick that are superb in their natural colors.

METRO ENGLISH ART---Clinkers in a riot of colors and shapes and which produce beautiful walls.

METRO TAVERNS---Three blends of semi-smooths varying from old rose to yellows and bronzes and slightly distorted brick. No glaze, but dull soft colors.

Before Building, Write for Free Samples---

Stating Which Type and Color Interests You



SHADE
NO. 20-F

SHADE
NO. 30-F

SHADE
NO. 40-F

SHADE
NO. 50-F

SHADE
NO. 60-F

SHADE
NO. 70-F

SHADE
NO. 80-F



For further details and
literature, write to:

THE METROPOLITAN PAVING BRICK CO., Canton, Ohio

HOME BUILDERS CATALOG

FACE BRICK by METROPOLITAN

SOLD IN ALL PRINCIPAL CITIES

RECENT OPERATIONS:

The Barbizon, New York.
Gramercy Park Building, New York.
Alden Park Manor, Philadelphia.
Home for Aged, Syracuse, N. Y.
New York Central Station, Youngstown, Ohio.
Hotel Roosevelt, Pittsburgh.
Hotel Allerton, Cleveland.
Morrel Street Power House, Detroit.
The Cloisters, Chicago.
Mineola School, Mineola, L. I.
Firestone-Apsley Building, Hudson, Mass.

Pharmacy College, Albany.
Broadway Junior High, Toledo.
Eagles' Temple, Canton, Ohio.
McKelvey Residence, Youngstown, Ohio.
Case School, Cleveland.
State Armory, Chillicothe, Ohio.
Puritan Telephone Building, Detroit.
Spicer and Rankin Schools, Akron, Ohio.
Newport High School, Newport, Ky.
Unitarian Church, Youngstown, Ohio.
Ypsi-Ann Office Building, Ann Arbor, Mich.

SEE SWEETS CATALOG FOR ADDITIONAL COLOR PANELS



“METRO VER-TEX”—Shade 40F.

This is the most popular brick for the modern and permanent home. The red in this brick cannot be equalled. This shade is distinctive and must be seen to be appreciated.



FULL RANGE “METRO MAT-TEX,” Shades Nos. 130-F to 180-F

We guarantee to ship any shade, percentage or mixture selected from the above, to produce any Architectural effects. Percentages can be varied, shades eliminated, at your discretion.



For further details and
literature, write to:

THE METROPOLITAN PAVING BRICK CO., Canton, Ohio

HOME BUILDERS CATALOG

We Advocate Maximum Dealer Distribution

The Only Tapestry Brick in the World

Look for the Name



Stamped on Every Brick

Sole Manufacturers

FISKE & COMPANY, Inc.

New York
15 W. 46th Street

Boston
115 Federal Street

PLANTS

Milton, Pa. Ridgway, Pa.
Darlington, Beaver County, Pa.
Buckeystown, Md.

PRODUCTS

Tapestry, Tapestry Antiques
Caledonian, Milton Reds
Darlington Grays, Fisklock
and other high-grade Face Brick
Also Repressed Garden Tile, Fire Brick and other Brick Specialties.
For all brick requirements—"See the Fiske Dealer First."

Tapestry Brick

TAPESTRY BRICK without question, is the best known face brick in the country. In fact, it has achieved such remarkable popularity that other rough textured brick are often called "Tapestry".

Only the genuine Tapestry Brick can give you genuine Tapestry effects. The rich blending colors are the result of a special clay found only in our Ridgway plant and a special firing which Fiske has developed in the course of nearly 60 years' manufacturing experience. Tapestry Brick is made only at this plant—no other plant can duplicate it.

To protect the buyer, the name "Tapestry" is plainly stamped on each Tapestry Brick. Look for name—it is your assurance of brickwork that will make your home distinctive.

Any dealer can get Tapestry Brick for you.

A Fiske Brick residence, a prize winner in the A. F. B. A. small home competition. Designed by Floyd Yewell, Burge, Stevens & Condlin, Atlanta, Supervising Architects.



Fiske Tapestry Colors

The above panel shows the Tapestry Red Range. One distinguishing feature of Tapestry Brick is the almost infinite number of intermediate shades available.

In the red Tapestry range, for instance, the colors start Indian red and run through copper, olive greens and purple browns to deep blue. In the gray Tapestry range, the colors run into cream-and-coffee shades, deep russets and tobacco browns, giving in mass the effect of old ivory. The golden-buff Tapestry range runs from a delicate chamois color to a deep golden brown. Ask your

dealer to show you the various Tapestry ranges.

All are distinguished by the Tapestry texture which reflects no light and helps to soften and blend the Tapestry colors into perfect harmony.

Tapestry Brick costs but little more than other good quality face brick. Compared to the total cost of the house, the difference is negligible. It is made up many times over in the increased valuation accorded the Tapestry Brick home and the satisfaction of having a distinguished home.

FISKE BRICK



For further details and literature, write to:

FISKE & COMPANY, Inc.

15 W. 46th St., New York
115 Federal St., Boston

"VELVET NAPS" FACE BRICK

Brick with Character

Made by
U. S. BRICK COMPANY
Tell City, Indiana



Shade No. 1—Dark Red



Shade No. 11—Full Range Mingled

Distinctive in Appearance

The rough texture of VELVET NAPS makes a wall of unusual beauty, giving to the house built of these bricks a charming individuality—that air of distinction that every home-owner craves.

Samples Free!

To all contractors, builders and dealers, mentioning Home Builders Catalog, we will cheerfully send samples of "Velvet Naps" Face Brick, without obligation. *Kindly mention shades* of brick desired.



For further details
write to:

U. S. BRICK COMPANY, Tell City, Indiana

WESTERN BRICK COMPANY

Manufacturers of
Face Brick, Common Brick,
Haydite and Featherweight Blocks

GENERAL SALES OFFICE
1604 Builders Building, CHICAGO, ILL.

OFFICE AND FACTORIES
DANVILLE, ILL.

BRANCH SALES OFFICES
INDIANAPOLIS, IND., 804 Hume-Mansur Building FT. WAYNE, IND. GRAND RAPIDS, MICH.
REPRESENTATIVES IN ALL PRINCIPAL CITIES OF THE MIDDLE WEST

Facilities

The WESTERN BRICK COMPANY manufactures annually 135,000,000 brick and tile at its two plants.

The shale and clay supply for these factories is practically inexhaustible; fuel supply is owned by the company in sufficient quantities to last at least twenty-five years.

Shipping facilities are unequalled, as the product is distributed from Danville over seven railroads. Plants have side track room for about 75 cars, and ordinary daily shipments, during the building season, exceed 500,000.

Over 1,700,000,000 brick have been manufactured and marketed during the past twenty-seven years.

Western Haydite

Haydite, the material from which the Government's concrete ships were made during the war, is a lightweight, burned clay aggregate, specially manufactured for use in concrete and cement products in place of sand, gravel or crushed rock.



TRADE-MARK

"Western Haydite" weighs less than 1,500 lb. per cu. yd. and the finished concrete, therefore, will average from 30 to 40% lighter than that made from regular aggregates.

It is burned in clinker form, then crushed and screened, which gives absolute control of the sizing, as well as producing particles of exceeding sharpness; therefore, it makes concrete of great compressive and tensile strength.

This aggregate has so many advantages that it is impossible to describe them fully in this one page. Special literature is available, free, upon request.

Western Featherweight Concrete Building Blocks

All of the Western Building Blocks are manufactured from Haydite lightweight aggregate.

In addition to withstanding every test required, no matter how exacting, these blocks in 8x8x16-in. size weigh less than 30 lbs. and nails can be driven into them with the assurance that they will not work loose.

This is a new product for 1928 and we expect to produce all standard sizes and shapes.

WESTERN STANDARD FACING BRICK

| Colors | Stipple V | | Doric stippled | Stipple X | | Gothic stippled | Matte matte | Cloister smooth | Ivory smooth | Bronze smooth | Empire scratched and rolled |
|------------------------|-------------|-------------|----------------|-------------|-------------|-----------------|-------------|-----------------|--------------|---------------|-----------------------------|
| | Plant No. 3 | Plant No. 1 | Plant No. 3 | Plant No. 1 | Plant No. 3 | Plant No. 1 | Plant No. 3 | Plant No. 1 | Plant No. 3 | Plant No. 3 | Plant No. 1 |
| Black to brown | 861 | | 871 | 271 | 811 | 71 | 841 | 410 | | | |
| Brown | 862 | 622 | 872 | 272 | 812 | 72 | 842 | 422 | | 1102 | |
| Brown to tan | 863 | | 873 | | 813 | | 843 | | 1073 | 1104 | |
| Tan | 864 | | 874 | | 814 | | 844 | | 1074 | | |
| Purplish brown | | | | 273 | | 73 | | | | | |
| Reddish brown | | 624 | | 274 | | 74 | | | | | |
| Green brown | | | | | | | | | | 1103 | |
| Brown edge, red center | | | | 230 | | 30 | | 423 | | | |
| Dark wine red | | 640 | | | | | | 440 | | | |
| Red | | 650 | | | | | | 450 | | | |
| Light red | | 655 | | 235 | | 35 | | | | | |
| Very light red | | 656 | | 236 | | 36 | | 460 | | | |
| Tan to golden buff | 866 | | 876 | | 816 | | 846 | | 1076 | | |
| Golden buff | 867 | | 877 | | 817 | | 847 | | 1077 | | |
| Pinkish buff | 868 | | 878 | | 818 | | 848 | | 1078 | | |
| Pink | 869 | | 879 | | 819 | | 849 | | 1079 | | |
| Pearl gray | | | | | | | | | 1016 | | |
| Mellow old ivory | | | | | | | | | 1017 | | |
| Light ivory | | | | | | | | | 1018 | | |

Standard Blends: Doric Chicago; Dark Gothic Stipple X; Stipple V; Stipple X Chicago; Stipple V Chicago; Dark Empire; Full Range Empire; Dark Persian; Full Range Persian; Dark Cloister; Red Cloister; Mosaic; Mossblende; October Blend; Burgundy Blend; Amethyst Blend; Western "Handmades."



For further details and literature, write to:

WESTERN BRICK COMPANY

DANVILLE
ILLINOIS



WESTERN MOSSAIC



WESTERN STIPPLE V CHICAGO BLEND



WESTERN MOSSBLENDE



For further details and
literature, write to:

WESTERN BRICK COMPANY

DANVILLE
ILLINOIS

Common Brick—A Standard Building Material

Made by Nearly 400 Members of

THE COMMON BRICK MANUFACTURERS' ASSOCIATION OF AMERICA

Headquarters at 2121 Guarantee Title Building
CLEVELAND, OHIO

With District Offices in These Cities:

Chicago, Ill., 228 No. LaSalle St.
Denver, Colo., 1735 Stout St.
Hartford, Conn., 226 Pearl St.
Detroit, Mich., 400 U. S. Mortgage Trust Bldg.
Boston, Mass., 11 Beacon St.
New York, N. Y., 1716 Grand Central Terminal
Norfolk, Va., 112 W. Plume St.

Cleveland, Ohio, 2124 Guarantee Title Bldg.
Seattle, Wash., 913 Arctic Bldg.
Philadelphia, Pa., 121 N. Broad St.
Pittsburgh, Pa., 702 First National Bank Bldg.
Raleigh, N. C., 508 Commercial Bank Bldg.
Rochester, N. Y., Western New York Assn.
Salt Lake City, Utah, 301 Atlas Block

The qualities of common brick, the world's oldest building material, are too well known to need extended description. Common brick builds into masonry which possesses ample strength, the highest fire resistance, high resistance to the passage of heat and sound and which maintains its beauty and integrity for centuries.

No building material meets all structural requirements more completely and satisfactorily than does common brick.

The home builder, whether he be owner, contractor, investment builder, or what not, should carefully consider the following facts regarding common brick structures, particularly homes.

A Common Brick Structure

Costs but little, if any, more to build than those of less enduring materials.

Is known by all concerned to possess all those virtues most desired—permanence, fire safety, comfort, freedom from upkeep expense, beauty and distinction.

Commands a larger and more easily obtained building loan.

Maintains its value, without constant upkeep expense.

Reduces resistance in a first sale.

Has a high resale value.

Can be a beautiful structure in any architectural style; the combination of a wide variety of brick colors and textures and of wall patterns, bonds and mortar joints makes an almost endless number of beautiful wall textures and effects easy of accomplishment.

Is made from a material supplied locally in every part of the United States.



Common Brick in a California Home



Common Brick in an Illinois Home



Common Brick in a New York Home

Helpful Books Are Available

HOMES OF LASTING CHARM. Photographs and plans of 120 modern brick homes, all built and occupied by satisfied owners. Many designed by architects of national reputation. Working drawings and specifications available at nominal cost. 25 cents.

MULTIPLE DWELLINGS. Photographs and plans of attractive double and row houses in brick. Working drawings at nominal cost. 10 cents.

BRICK—HOW TO BUILD AND ESTIMATE. A complete manual of brick construction including important and useful data and tables of required material quantities. 25 cents.

THE HEART OF THE HOME. Beautifully illustrated brick fireplace designs with complete directions for proper construction. 25 cents.

SKINTLED BRICKWORK. Photos and details showing how to obtain these interesting and attractive wall surfaces. 15 cents.

REINFORCED BRICK STORAGE STRUCTURES AND SILOS. Full information and data on these economical brick structures including complete construction directions. 15 cents.

MORTAR. All the essential information about mixing and using all kinds of mortar. Free.

FARM BUILDINGS OF BRICK. Photographs and plans of brick farm buildings—barns, dairy houses, poultry house, shop, garages, etc. Designed by agricultural experts. Working drawings at nominal cost. 5 cents.

FARM HOMES OF BRICK. Photographs and plans of homes specially designed to suit the farmers' needs by agricultural experts. All built and occupied. Drawings at nominal prices. 5 cents.



For further details and literature, write to:

The Common Brick Manufacturers' Association of America

2121 Guarantee Title Bldg.
Cleveland, Ohio

Clinton Metallic Paint Company

Mortar Colors, Cement Colors, Protective Paints and Roofing Cement

300 Clinton Road

CLINTON, N.Y.

Branch Office: New York, N.Y., 19 Liberty Street. Telephone, John 3369

Mortar and Cement Colors

One fifth of the brickwork in a home consists of mortar and a great variety of pleasing effects can be obtained by the use of CLINTON MORTAR COLORS. Interesting and harmonious effects can also be obtained in exterior stucco work with CLINTON CEMENT COLORS.

Products and Experience

Over forty years of scientific research and manufacturing experience are reflected in the uniform excellence of CLINTON products. In addition to CLINTON MORTAR COLORS and CLINTON CEMENT COLORS, we also manufacture CLINTON Iron Oxide Protective Paints and CLINTON Silk Fibre Elastic Roof Cement.

Clinton Mortar Colors

Nature's Permanent Colors—Made Since 1887—at Clinton, N.Y.

Permanent and Uniform

Clinton Mortar Colors are mineral colors, as permanent as the colors in natural rock. Rigid laboratory tests keep them absolutely uniform from shipment to shipment and from year to year. Many attractive combinations can be effected with Clinton color.

Directions for Estimating and Using Clinton Mortar Colors

To get a mortar joint of intense color it is advisable to use approximately 100 lbs. of dry mortar color per 1000 brick laid in running or common bond, with half-inch mortar joints. If mortar joints are wider or narrower, or if a bond requiring more or less mortar



Mortar Colored with Clinton
Pompeian Buff No. 600



Mortar Colored with Clinton Double Strength
Olive Green No. 1503



Mortar Colored with Clinton Special
Chocolate No. 404



Mortar Colored with Clinton
Colonial Buff No. 700

Clinton Metallic Paint Company

per 1000 brick is used, the amount of mortar color required per 1000 brick should be increased or decreased proportionately.

Following are two formulas for mortar of deep intense color:

Cement Mortar

| | |
|----------------------------|-------------------|
| Clinton Mortar Color (dry) | 25 lbs. |
| Portland cement | 1 bag (1 cu. ft.) |
| Sand | 3 cu. ft. |
| Hydrated lime | 1/10 sack |

The above is sufficient to lay approximately 250 brick in running or common bond with half-inch mortar joints.

Cement Lime Mortar

| | |
|----------------------------|-----------------------|
| Clinton Mortar Color (dry) | 30 lbs. |
| Portland cement | 1 bucket (16 qts.) |
| Hydrated lime | 1 bucket (16 qts.) |
| Sand | 6 buckets (96 quarts) |

The second formula is sufficient to lay approximately 300 brick in running or common bond with half-inch mortar joints.

As it is not always convenient to weigh the color on the job, we tabulate below the various shades of Clinton Mortar Color, showing in separate columns the number of quarts of dry Clinton Mortar Color (*struck measure*) which are equivalent to 25 lbs. and 30 lbs.

Caution: This table applies only to genuine Clinton Mortar Colors.

| | Number of quarts Equivalent to | |
|------------------------------------|-----------------------------------|---------|
| | 25 lbs. | 30 lbs. |
| Clinton Hematite Red No. 10 | 10 | 12 |
| Clinton Mortar Brown No. 400 | 8½ | 10½ |
| Clinton D. S. Chocolate No. 402 | 9 | 11 |
| Clinton Special Chocolate No. 404 | 9 | 11 |
| Clinton Colonial Buff No. 700 | 19 | 23 |
| Clinton Pompeian Buff No. 600 | 19 | 23 |
| Clinton Dark Buff No. 717 | 16½ | 20 |
| Clinton Mortar Black No. 900 | 18½ | 22½ |
| Clinton D. S. Black No. 800 | 19 | 23 |
| Clinton D. S. Olive Green No. 1503 | 17½ | 21 |

Pearl Gray Mortar may be produced by using one-eighth as much Clinton Double Strength Black No. 800 as is recommended above to produce intense black mortar.

Clinton Mortar Black No. 900 or Single Strength Black, as it is sometimes called, will not give a jet black mortar. For best work use Clinton Double Strength Black No. 800.

If a clear buff mortar is desired a cement-lime mortar is recommended. Light colored cement and sand also tend to make the color of the mortar more brilliant. If a deep buff mortar is

desired it will be obtained most readily by using a cement mortar with cement and sand of dark color.

Many contractors get good results with smaller proportions of Clinton Mortar Colors than those above recommended. This is possible if coarse sand is used and all ingredients are mixed, remixed, then mixed again. Experience, however, proves that the amounts of color recommended will give good results under all conditions and we cannot assure satisfaction if less color is used. *Money spent for a little extra color more than pays for itself, in power and wages saved at the mixer and in the owner's satisfaction with the finished job.*

Coloring of Stucco

The fact that stucco may be tinted has added much to its popularity as a facing material. By use of various Clinton Mortar Colors, it is possible to color stucco in many pleasing tones.

The following formula is suggested:

| |
|-------------------------------------|
| 1 quart Clinton Color |
| 10 quarts White Portland Cement |
| 30 quarts White Sand or Marble Dust |

This batch covers about 125 sq. ft. finish coat. Only the finish coat need be colored. Not to exceed one quart of Hydrated Lime may be added to this batch, if desired.

Shade Produced

| Name of Clinton Color to be used. | Approximate weight per quart |
|-----------------------------------|---|
| Rich Red | Clinton Red Cement Color No. 92 2½ lbs. |
| Rich Pink | Clinton Hematite Red No. 10 2¾ lbs. |
| Pinkish Brown | Clinton Mortar Brown No. 400 3 lbs. |
| Seal Brown | Clinton Brown Cement Color No. 1150 1½ lbs. |
| Pinkish Buff | Clinton Pompeian Buff No. 600 1½ lbs. |
| Light Cream | Clinton Colonial Buff No. 700 1½ lbs. |
| Brilliant Yellow | Clinton Yellow Cement Color No. 715 1 lb. |
| Deep Buff | Clinton Dark Buff No. 717 1¾ lbs. |
| Turquoise Green | Clinton Green Cement Color No. 1502 2 lbs. |
| Light Blue | Clinton Blue Cement Color No. 1601 1¼ lbs. |
| Light Gray | Clinton Mortar Black No. 900 1½ lbs. |
| Deep Gray | Clinton Double Strength Black No. 800 1½ lbs. |

Folder No. 300 including above data and additional practical information concerning mixing and use of Clinton Colors will be gladly sent upon request.

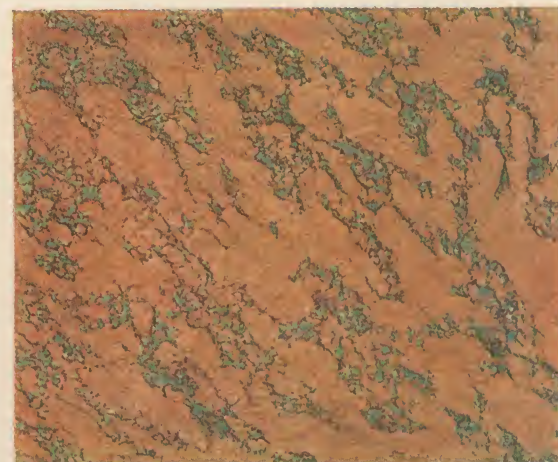
Specification

All coloring material to be manufactured by Clinton Metallic Paint Co., Clinton, N. Y., to be delivered on the job in original packages bearing their labels, and to be used according to directions which they will furnish.



Duo- and Multi-colored Stucco

Here are illustrated two panels of duo-colored stucco made with Clinton Colors. Folder No. 301 containing instructions for producing these effects together with more detailed instructions concerning the use of Clinton Colors in stucco will be gladly sent if requested.



Ricketson Brand Mortar Colors

Made by

RICKETSON MINERAL PAINT WORKS

MILWAUKEE, WIS.

You Can't Fade 'Em

This Company has been making non-fading mortar colors since 1885. The Lake Superior hermatite ores from which Ricketson Brand Mortar Colors are made are conceded to be the purest and strongest to be found in nature's laboratory. These colors are not produced by artificial means but are just as they occur in nature, hence they are as everlasting as the ores from which they are made. All unstable oxides are removed in the process of manufacture leaving only such colors as will permanently withstand the effects of time and the elements.

Other Advantages

Permanence is, of course, the first quality desired in a mortar color but Ricketson's possesses other merits as well. Being absolutely pure coloring matter, without filler or binder and insoluble in water, they never cake or deteriorate no matter how long they may have been kept before using. The grinding process, which reduces them to impalpable fineness, makes it easy to obtain a

perfect mix and results in an unusually intimate union with the other mortar or cement ingredients. Laboratory tests prove conclusively that Ricketson Mortar Colors produce a stronger mortar or concrete aggregate. Owing to their high percentage of ferric oxide these mortar colors go farther than any other, making them the cheapest colors to use as well as the best.

Used With Mortar, Stuccos and Cement

For forty years Ricketson's non-fading, pure mineral colors have been used for coloring mortar, stuccos, cement, brick and tile and we have yet to hear of a simple job that did not prove entirely satisfactory to architect, contractor and owner.

Full Information on Request

Complete information regarding Ricketson's Mortar Colors, together with directions for use, color chart, etc., will gladly be mailed to any contractor who writes for them.

Ricketson's Mortar Colors have been used in some of the largest buildings in the United States including the Union Station, Washington, D. C.; The Auditorium, Milwaukee, Wisconsin; Woodlawn High School, Birmingham, Alabama, and many more.



Mortar Colored With Ricketson's Buff

Ricketson's Mortar Colors are obtainable in the following colors: *Red, Brown, Green, Buffs, Chocolate and Blacks*. Many other tones are obtainable by blending these standard colors in varying proportions.



Mortar Colored With Ricketson's Brown



Mortar Colored With Ricketson's Red



Mortar Colored With Ricketson's Double Strength Chocolate

**FOR FORTY
YEARS THE
RECOGNIZED
STANDARD
OF
MORTAR
COLORS**



Mortar Colored With Ricketson's Double Strength Black



For further details and literature, write to:

RICKETSON MINERAL PAINT WORKS

Railway Exchange Building
Milwaukee, Wis.

C. K. WILLIAMS & CO.

Manufacturers of Anchor Brand Cement and Mortar Colors

MAIN PLANT
EASTON, PA.

RAW MATERIAL AND SUPPLY PLANTS

ALLENTOWN, PA.
GRANITE CITY, ILL.EAST ST. LOUIS, ILL.
LEHIGH GAP, PA.EMERYVILLE, CAL.
MALAGA, SPAIN
MINERAL POINT, MO.MONROE, LA.
FLEETWOOD, PA.MARTINS FERRY, OHIO
FRUITLAND, N. Y.

MINES AND RAW MATERIAL DEPOSITS

ALLENTOWN, PA.
LEHIGH GAP, PA.EASTON, PA.
MINERAL POINT, MO.FLEETWOOD, PA.
MONROE, LA.FRUITLAND, N. Y.
READING, PA.JAEN, SPAIN
ST. GENEVIEVE, MO.WYOMISSING, PA.
AGENTS IN ALL PRINCIPAL CITIES**Products**ANCHOR BRAND STUCCO COLORS.
ANCHOR BRAND MORTAR COLORS.
ANCHOR BRAND CEMENT COLORS.**The Charm of Color**

Imagine what a drab world this would be if it were not for color! Nature is lavish in her use of color and as a result we have blue sky, green fields, red earth, gray rocks and multi-tinted flowers all blended into a harmonious landscape of which the very soul is—COLOR.

Color in the Home

Inside the home color is used in profusion on the walls, the draperies, the floor coverings, and even on the polychrome ornamentations of the lighting fixtures. But why confine the charm of color to the **inside** of the home?

Is the appearance of the outside of the house of no importance? We are speaking now of brick houses for in frame houses contrasting colors are always used for the body color and the trim. But when you build for permanence with brick why do you invariably use white mortar?

Just habit, isn't it? You have heard of Mortar Colors, perhaps, but are not familiar with the beautiful effects that can be obtained by their use. Perhaps you think they are difficult to use—or expensive—or not reliable. None of these things are true. Mortar Colors are easy to use, they are inexpensive and if you are careful to select a reliable brand (such as Anchor Brand) they are as permanent and non-fading as the brick themselves.

A Distinctive Home

If there is any one thing that the home-owner desires above another it is a **distinctive** home. He does not wish his house to look like all the other houses in the neighborhood. He wants a house that is **different**—one that possesses a personality of its own. Working with brick there is no way in which you can so easily give charm and individuality to the exterior of a home as by using colored mortar.

Profit by Our Experience

The experience of C. K. Williams & Co. with Mortar Colors goes back to 1878—50 years ago. What we have learned in this long period of time is freely at the service of building contractors who wish to know more about Mortar Colors and how to use them to the best advantage. Just drop us a line saying "Send me your literature on Anchor Brand Mortar Colors" and we will gladly respond with interesting and helpful printed matter. After you have learned all you can from this if there are any questions you would like answered let us know what they are and we will gladly reply to all your questions in a personal letter.

Anchor Brand Cement Colors

Anchor Brand Cement Colors are very finely ground and produce clear, bright tones with a minimum of coloring material. They are used in floors, sidewalks, cast stone work, roofing and floor tile, stucco, etc., and should not be confused with mortar colors.



For Cement Floors—Although colored cement floors are comparatively inexpensive, they should never receive the treatment of a cheap floor. Colored cement, if carefully laid, finished and protected, will be found to possess all the decorative qualities of more expensive materials, along with the strength and economy of concrete.

For Stucco—The popularity of colored or tinted stucco surfaces is increasing rapidly. Directions for the use of our stucco colors will be furnished on request.

Available Colors—Our list of colors suitable for cement and stucco work is too long to publish here, but the more important numbers are given below. For special shades or tints we will be glad to supply samples as requested.

| | | | |
|------------|---------------|-----------|-----------|
| No. 500 | Red Oxide | No. 17 | Dark Buff |
| No. 1195-B | Red Oxide | No. 1169 | Brown |
| No. 1241 | Red Oxide | No. 805 | Brown |
| No. 305 | Red Oxide | No. 269 | Green |
| No. 690 | Red Oxide | No. 271-S | Green |
| No. 1149-M | Yellow Oxide | No. 328 | Blue |
| No. 5 | French Yellow | No. 249 | Black |

Directions for Coloring Cement Floors

Subfloors under colored cement topping should be laid as usual, although it is better to use a fairly dry mix and tamp thoroughly. Allow 1 in. for top dressing, which should be laid immediately.

Top Finish—Apply top finish not less than 1 in. thick composed of 1 part cement and 2 parts of sharp clean sand, free from loam, and from 3 to 10 per cent of color, according to results desired. Mix the cement, sand and color thoroughly before water is added. Use only enough water to make a heavy paste. Continue mixing until the mass is absolutely free from spots or streaks of color. While the base is still moist, apply the top dressing as follows: Trowel down about ½ in. of colored cement at a time, so as to work the air out of the mass. Build to the surface in this manner. Use the stroke board to chop the surface, as the mass will be too tough to stroke in the usual way. Take off any surplus with the trowel. Level the surface and let it lie till it becomes dull. Do not trowel until all the water on the surface disappears.

Tile Effect (Optional)—48 hours after application of the top finish, cut the floor ¼ in. deep with a three-cornered file sharpened to a diamond point, so as to produce a tile effect in the pattern selected.

Note: Cutting floors while green will produce a ragged edge.

As soon as the topping is sufficiently set cover the floor with a 2-in. thickness of sawdust, which should be kept wet for at least 2 weeks.

Cleaning and Waxing—When the protective coating is removed, wash the surface with linseed oil soap, using a wire brush if necessary, to remove dirt and stains. When clean and dry, cover the surface again with a 2-in. thickness of sawdust. Just before the floor is to be put into use, polish it with a suitable floor wax.



For further details and literature, write to:

C. K. WILLIAMS & CO., Easton, Pa.



Left
Five Range Rough Texture Brick
Laid with Anchor Brand
No. 19 Buff
188 lbs. Sand (2 cu. ft.)
94 lbs. Cement (1 bag)
9 1/2 lbs. Hydrated Lime
15 lbs. No. 19 Buff



Right
Full Range Rough Texture Brick
Laid with Anchor Brand
No. 1151 Red
188 lbs. Sand (2 cu. ft.)
94 lbs. Cement (1 bag)
9 1/2 lbs. Hydrated Lime
20 1/2 lbs. No. 1151 Red

Anchor Brand Mortar Colors

Anchor Brand Colors are manufactured in our own mills to meet the three essential requirements: **permanence of color**, so the mortar will not change its shade with age; **uniformity of color**, so that all batches of mortar in which a given color is used will be exactly alike; and **fineness of grinding**, so that the maximum coloring power is developed.

Colors—The following ten colors are standard:

| | |
|------------------|------------------------------------|
| No. 1151 Red | No. 19 Light Buff |
| No. 115 Red | No. 220 Single Strength Black |
| No. 1184 Brown | No. 222 Double Strength Black |
| No. 17 Dark Buff | No. 1174 Double Strength Chocolate |
| No. 18 Dark Buff | No. 257 Lime Proof Green |

For special work we can supply special colors of any shade desired. Also some very good tints can be obtained by mixing the regular colors. Grays are obtained by using black sparingly, etc.

Sold in Dry Form—It is our experience that colors in the dry form are least expensive to the user and show the greatest coloring power per unit of weight.

Directions for Using Anchor Brand Mortar Colors

Cement Mortar—All mortar for face brick work should be accurately mixed to the formula: 188 lbs. (2 cu. ft.) sand, 94 lbs. (1 bag) cement, 9 1/2 lbs. hydrated lime, with the proper amount of Anchor Brand Mortar Color.

Mixing—Mix thoroughly the dry color, sand, hydrated lime and cement before water is added. After the water is added, continue mixing until the mass is absolutely free from spots or streaks of color. Mortar should be mixed as stiff as is practicable, and batches should be kept as nearly as possible at the same consistency throughout the job. Accurately maintain the same proportions of ingredients in all the batches.

Test Panel—If test or sample panels are desired they should be constructed in the same manner and of the same thickness as the finished wall. Face brick for test panels should be laid in mortar mixed according to the formula and directions given above. After test panels are thoroughly

dry, it should be decided whether the color of the mortar is satisfactory, or whether the amount of mortar color in the formula should be increased or reduced.

Cleaning and Pointing—When the plasterer has left building, all surface brick and mortar shall be thoroughly cleaned down by applying a solution containing not more than 1 part of muriatic acid to 20 parts of water, using a stiff wire brush. Surface shall then be rinsed with clean water. All defective joints should be pointed up at this time.

Notes

Lump Lime—If lump lime is used in place of hydrated lime, it must be thoroughly slaked and allowed to cool at least 24 hours before being brought in contact with mortar colors. *Hot lime bleaches color.*

Accurate Mixing Necessary—Lime is a strong pigment; sand and cement also have an important effect on color. It is important to measure accurately and maintain same proportions throughout the work.

Omission of Test Panel—For smaller jobs where cost is an important consideration, the test panel may be omitted. In this case, a little of the mixed mortar may be taken from the first batch and pressed into a small cake. When this cake is dry, it can be determined whether the color of the mortar will be satisfactory.

Raking Joints—Defer raking till mortar has begun to set.

Prevention of Efflorescence—If mortar is mixed stiff and raking of joints deferred till mortar has begun to set, efflorescence will rarely be found. Efflorescence is in no way caused by Anchor Brand Mortar Color. It is due to the occurrence of soluble salts in cement, sand, lime, water or the brick, and is just as common in plain mortar as in colored mortar, though not so easily visible.

Special Facilities of C. K. Williams & Co.

C. K. WILLIAMS & Co., has a highly specialized organization, and a plant equipment which consists of a group of mines and a color plant located in Spain, where it produces its own Spanish Oxides. Other plants are located in different parts of the United States, as near as possible to the sources of supply of raw materials. Production of colors of maximum quality and uniformity has been the Company policy for nearly fifty years.



Left
Five Range Rough Texture Brick
Laid with Anchor Brand No.
1174 Double Strength
Chocolate
188 lbs. Sand (2 cu. ft.)
94 lbs. Cement (1 bag)
9 1/2 lbs. Hydrated Lime
15 lbs. No. 1174 Double
Strength Chocolate
Brown



Right
Full Range Rough Texture Brick
Laid with Anchor Brand No.
222 Double Strength Black
188 lbs. Sand (2 cu. ft.)
94 lbs. Cement (1 bag)
9 1/2 lbs. Hydrated Lime
14 lbs. No. 222 Double
Strength Black



For further details and
literature, write to:

C. K. WILLIAMS & CO., Easton, Pa.

**"MAKES A
THERMOS
WALL"**

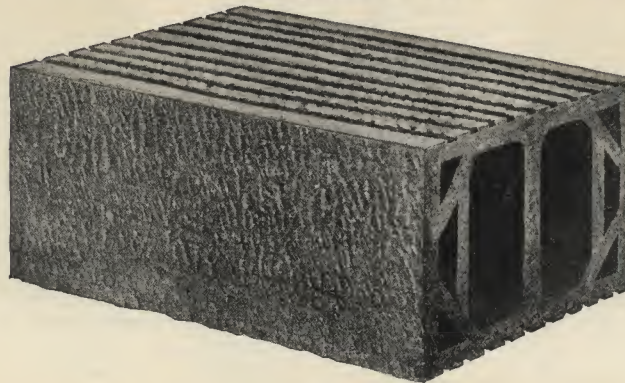
**Combines Beauty,
Durability and
Economy**

**Read carefully
full specifications
given below of**

HOOSIER HOLO-BRIX

HOOSIER Giant Holo-Brix

WIRE CUT FINISH



Every home owner is interested in a better home for less money possible through using HOOSIER HOLO-BRIX.

The realtor-builder gives a better deal to home-buyers and improves his real estate investment by building better homes for less money through the use of HOOSIER HOLO-BRIX.

Building contractors should be familiar with the use and merit of HOOSIER HOLO-BRIX so as to build for better homes.

See your material dealer for estimates on HOOSIER HOLO-BRIX.

SIZE OF UNIT—5x12 face furnished in 4, 8 or 12" widths for 4, 8, or 12" wall construction. Lays up quickly and saves time and mortar.

CRUSHING STRENGTH—2000 pounds per square inch. Many times greater than required by any building code.

HEAT INSULATION—No insulating material needed when you build with HOOSIER GIANT HOLO-BRIX. The dead air space provides the most efficient heat insulation known. A cool house in the summer and a warm house in winter.

INSURANCE—Lower rates because of fire-resisting construction.

PLASTER BASE—None needed. Plastering is applied directly to the inside face of the wall without requiring furring strips or lath.

SHAPES AND OPENINGS—Special CORNER block is provided which makes a perfect bond on the corner, also Closures with closed ends to be used in connection with door or casement openings and grooves are provided to receive wood strips in wood frame construction or metal angles in steel frame construction insuring air tight connection. Box Jams are also finished with recesses to receive box frames. SEE WALL SECTION, LOWER RIGHT HAND CORNER.

JOIST—A 4" block is used covering the ends of the joist. Fill in between the joist with brick or damaged tile and proceed with wall construction.

PAINT—None needed. The rich, beautiful color of HOOSIER GIANT HOLO-BRIX is a strikingly handsome exterior finish. It is absolutely permanent and superior to any paint combination.

COSTS—In residence construction are about the same as good frame construction and approximately 25% less than Face Brick.

SHADES—When HOOSIER HOLO-BRIX are specified our special shading of wire cut finished blocks are furnished which are manufactured in shades of dark or light brown, gray, cream and special mingles, all of which are specified by shade number.

APPEARANCE—Finished wall will have the appearance of a high class tapestry brick with an individuality and a striking effect appealing to the most exacting trade.

DON'T CONFUSE HOOSIER GIANT HOLO-BRIX WITH THE ORDINARY BUILDING TILE OFFERED ON THE MARKET.

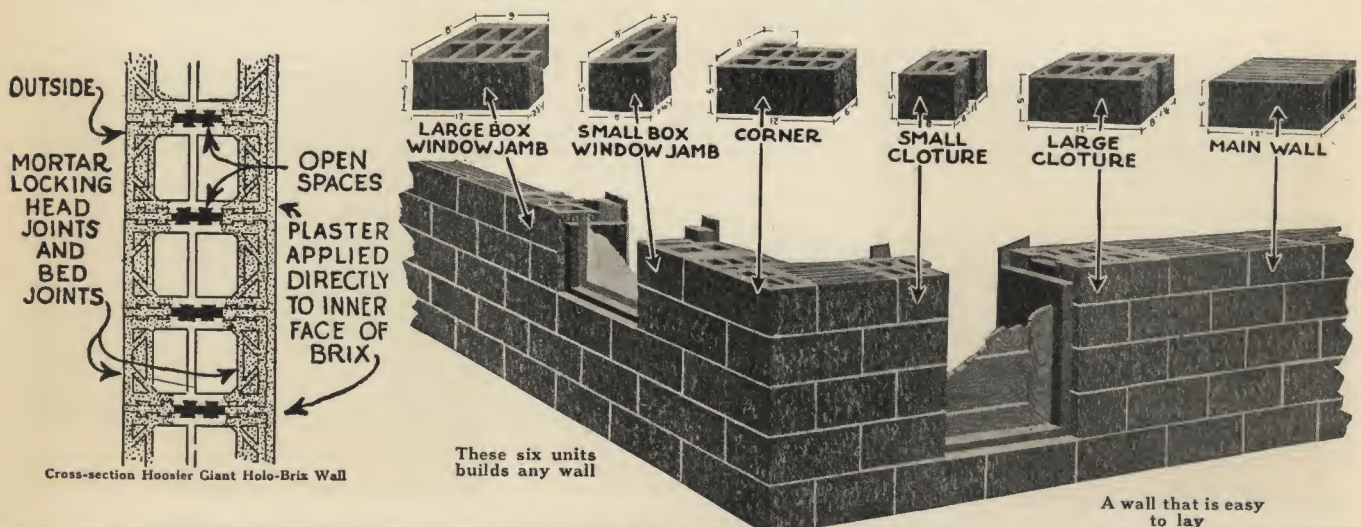
LAYING HOOSIER GIANT HOLO-BRIX—Use a good hard brick mortar, water-proofed. Mortar should be well mixed and tough so that it will stay placed. After the mortar has had a chance to partially set, the outer joints should be tooled.

SINGLE UNIT WALL—In laying a single unit wall, spread the mortar on the inner and outer edges of the bed joints, leaving 2" space in the center. Fill and tool head joints and when wall is completed, you will have two independent and firmly constructed walls tied together with the cross webs of the brix forming a continuous dead air chamber in the wall. SEE CROSS SECTION OF WALL, LOWER LEFT HAND CORNER.

TWO UNIT WALL—Use HOOSIER HOLO-BRIX in 5x4x12 for exterior veneer, backing up with the ordinary 4 or 8" back-up tile, depending on the thickness of the wall desired.



Above beautiful home constructed of HOOSIER GIANT HOLO-BRIX



For further details and literature, write to:

HOOSIER BUILDING TILE & SILO CO., Albany, Ind.

Hoosier Glazed-Tile Basements

*By Using "Hoosier Glazed-Tile" in Foundation
and Basement Walls*

"MAKES A STRICTLY-MODERN HOME"

The Ideal Basement Material

The Hoosier Glazed Building Tile is used as a combined foundation and basement wall. It makes a superior foundation, having many times the supporting strength necessary for its burden. Its glazed surface makes it the ideal basement wall, beautiful and sanitary; beautiful because of its rich, velvety brown surface and sanitary because it holds no dampness and is easy to clean. In reality the use of Hoosier Glazed Building Tile gives you another room, a room as attractive as any in your house.

Size of Blocks

Just right size to look good, having a 5"x12" face and can be furnished in either 4", 8" or 12" widths for various thickness of walls.

Easy to Lay

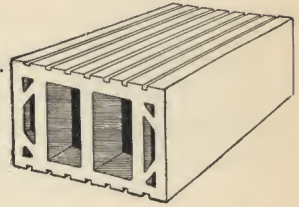
Use ordinary mortar waterproofed.

Dry Wall

Because Hoosier Glazed Building Tile are hollow and burned to a flint-like hardness. So made and built in a wall that there is no direct connection from outside to inside of wall to draw dampness. Eliminates capillary attraction entirely.

Makes a finished wall at one operation, no forms to build, tile comes ready to lay. All necessary shapes for fitting window frames and corner blocks for making perfect bond.

☛ For prices and estimates see your supply or lumber dealer.



For further details and
literature, write to:

HOOSIER BUILDING TILE & SILO CO., Albany, Ind.

KALAMAZOO GLAZED TILE

Plant
Carbon, Ind.

Manufactured by
CLAY PRODUCTS DIVISION
KALAMAZOO TANK & SILO CO.

Office
Kalamazoo, Mich.

First Cost No Greater—
often much less. Upkeep
costs practically eliminated.
No paint, no repairs.



Kalamazoo Tile — the
most economical permanent
building material. Attractive,
beautiful, fire-safe.

Product:

Vitrified glazed building tile.

Sizes:

5x8x12 (height x width x length in inches).
Also in corresponding shapes for corner, door and
window closures. 5x4x12 sizes to match. Equal
to six bricks in an eight-inch wall and three bricks
in a four-inch wall.

Faces:

Mat-face: for houses, apart-
ments, stores, etc., where a fine
face is desired.

Smooth glazed: factories, stores,
farm buildings, basements, etc.

Gym-tex: Wire-cut face for in-
terior or exterior use in all types
of buildings.

Color:

Wide "brown" range, from deep chocolate to
light buff. In uniform or mixed selections.

Strength:

2000 lbs. to square inch, far exceeding building
code requirements.

Cost:

First cost no greater than frame construction
(some say five to ten per cent less), 20% to 30%
less than brick.

You Save:

(over frame)—studding, lath, sheathing, build-
ing paper, nails, siding and paint. (over brick)
mortar and labor.

You Gain.

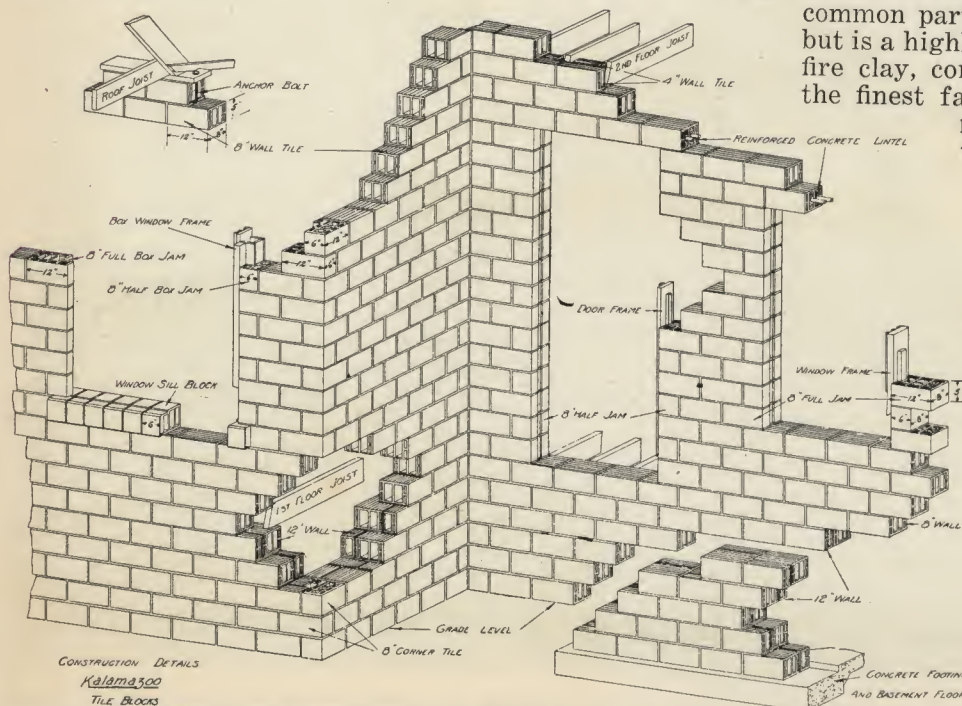
Greater warmth in winter, cool-
ness in summer, permanence,
beauty, lower insurance, minimum
depreciation, lowered fuel costs
(10 to 25%), fire safety.

Dry Walls:

Kalamazoo tile is burned at such
high temperatures and the clay so perfectly fused
that the blocks are absolutely impervious to moist-
ure, and properly laid, cannot absorb moisture
even through the mortar joint.

Above All:

Bear in mind that Kalamazoo vitrified glazed
tile is not to be confused with cheap grades of
common partition, back-up and drain tile,
but is a highly specialized product of 100%
fire clay, comparable in every respect to
the finest face brick, and developed pri-
marily for fine house construc-
tion.



The great variety of
special shapes of Kala-
mazoo blocks, combined
with their uniformity,
makes them thoroughly
adaptable to virtually
every type of masonry
construction. On the left
is illustrated the con-
struction details of a
typical two story and
basement building, the
tile being available for
four and eight inch
walls, and multiples
thereof.

For further details and
literature, write to:

KALAMAZOO TANK & SILO CO.

Kalamazoo,
Michigan

HOME BUILDERS CATALOG

KALAMAZOO VITRIFIED GLAZED BUILDING TILE



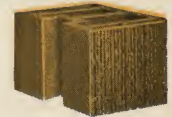
8" Main Wall



4" Main Wall



8" Full Closure



8" Half Closure



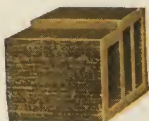
8" Full Box Jamb



8" Half Box Jamb



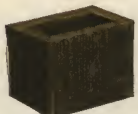
8" Corner



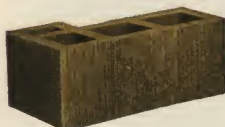
Window Sill



4" Full Closure



4" Half Closure



4" Corner



Header

The houses of this page are examples of the striking attractiveness of Kalamazoo vitrified glazed tile, though the richness and warmth of the colors in their range between deep browns and light buffs cannot be fully appreciated until the blocks themselves are seen.

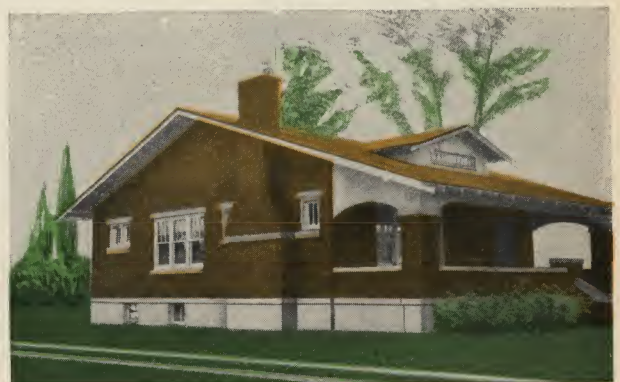
All the houses shown are of standard blocks, giving an eight inch wall. The garage at the rear, above, is of four-inch tile, identical in all other respects with the eight-inch blocks of the house. Plaster was applied in all instances to the tile direct, saving studding and lath.



This pleasing story and a half home is built of Kalamazoo tile from grade line to gable, mat-faced blocks being used in the first story and the stucco applied to our heavy-duty three-cell fire clay back-up blocks. Its owner claims a great fuel saving over his experience in houses of similar size but other construction, together with far greater coolness in summer. And the first cost was no greater!

The house to the right is an example of what can be done with Kalamazoo vitrified glazed tile in a small house of the bungalow type. While the first cost was no greater (most builders find it to be less)

than good frame construction, the subsequent savings in lower insurance, fuel, paint and upkeep prove Kalamazoo tile construction the most economical of all modern building material.



The above photographs, and those on the opposite side of the page illustrate the various "shapes" or main wall and closure tile for use in four and eight inch walls, and their multiples. These same sizes and shapes are also available in smooth glazed tile for all buildings and basements where a smooth finish is preferred to a mat face. Also, in our GYM-TEX, or wire-cut blocks, glazed or unglazed.

Natco Hollow Building Tile

Manufactured by the

NATIONAL FIREPROOFING COMPANY

General Offices: Fulton Bldg., Pittsburgh, Pa.

SALES OFFICES

NEW YORK
Flatiron Bldg.

CHICAGO
Builders Building

PHILADELPHIA
Land Title Bldg.

BOSTON
Textile Bldg.

Products

Natco Hollow Building Tile is being used more and more every year for the walls of the better type of low cost, fire safe, comfortable homes and garages. You get unusual speed and economy in erection, low upkeep, fire safety, decreased fuel bills with little or no depreciation at an extremely reasonable first cost.

Exclusive Advantages

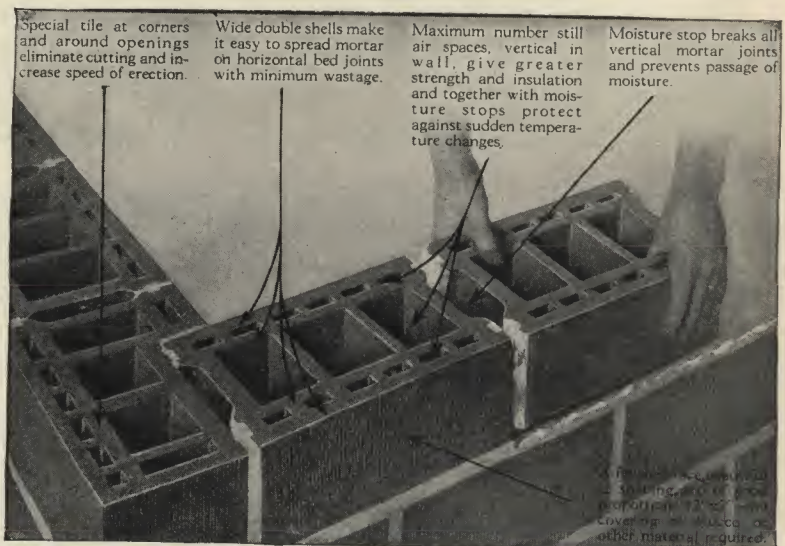
Only with Natco Hollow Building Tile do you get the double shell feature as illustrated at right. Here the wide shells at both interior and exterior walls insure perfect horizontal and vertical mortar joints. Moisture cannot penetrate hard burned clay tile. The still air spaces between the inner and outer shells prevent through mortar joints and thoroughly insulate the walls against cold, heat and moisture. As a result, homes and garages with walls of Natco Hollow Building Tile are truly warm in winter and cool in summer.

Natco Double Shell Textile Low in First Cost

The varied tones, ranging from a deep, rich red to a dark chocolate brown, along with the texture of the face itself, makes it possible for you to build a particularly inviting and pleasing home of Natco Double

General Advantages

With Natco Hollow Building Tile you save one-half the mortar, one third to one-half the labor, with one-half the weight, along with a less number of pieces to handle. You not only save in weight but gain in heat insulation, health and sanitation because of dry walls, more rapid erection of building, with less load on frame and foundation.



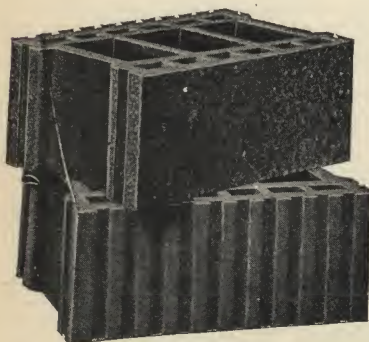
Special tile at corners and around openings eliminate cutting and increase speed of erection.

Wide double shells make it easy to spread mortar on horizontal bed joints with minimum wastage.

Maximum number still air spaces, vertical in wall, give greater strength and insulation and together with moisture stops protect against sudden temperature changes.

Moisture stop breaks all vertical mortar joints and prevents passage of moisture.

View of corner of Natco Glazed Double Shell Tile showing advantages of double shell construction. These exclusive features are your insurance that any building you construct of Natco Double Shell Tile will be reasonable in first cost, fireproof, with no chance for heat, cold and moisture to pass through the walls.



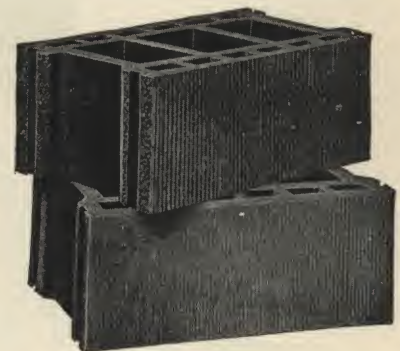
Natco Tex-Tile

8"x12"x5" size only, for 8" walls. Outside face 5"x12", "TEX" finish in side surface, dovetailed scored. Here you have an exterior wall surface of uniformly rough texture with an interior surface scored to receive and hold regular interior plaster.

Shell Load Bearing Tex-Tile. Contrasts very artistically and effectively with white, black, cream or other colors of the mortar joints and trim. Furnished with face 5" x 12" for walls 8 in. thick. Combines beauty, durability, resistance to fire and decay, reasonable first cost, low upkeep and low heating cost to a remarkable degree.

Natco Unglazed Double Shell Combed Face Tile Desirable

In variety of color and general appearance, Natco Unglazed Combed Face Double Shell Load Bearing Tile resembles high quality tapestry brick. It is supplied with two combed faces 5x12 in. for walls 6 and 8 in. thick. The large units of both Natco Unglazed Double Shell Combed Face Tile and Natco Tex-Tile are quickly and easily laid at great savings over other forms of masonry construction.



Natco Unglazed Double Shell Tile

6"x12"x5" for 6" walls, two 5"x12" faces, combed

8"x12"x5" for 8" walls, two 5"x12" faces, combed

You can choose the better of two faces for an exterior surface similar to rough face brick and an interior, rough enough for the application of the wall plaster directly to the tile surface.



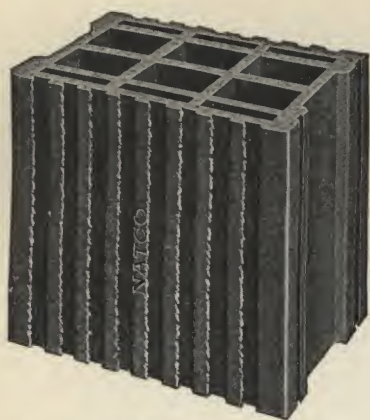
For further details and literature, write to:

NATIONAL FIREPROOFING COMPANY

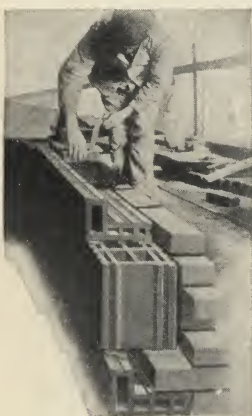
Fulton Bldg.,
Pittsburgh, Pa.

HOME BUILDERS CATALOG

Natco Hollow Building Tile (Continued)



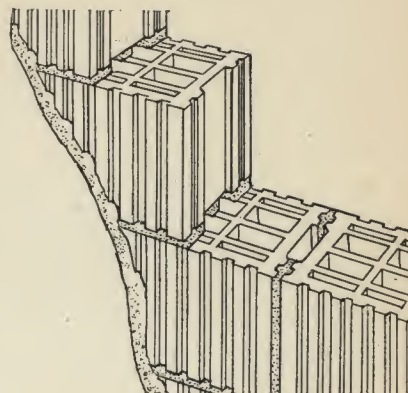
8" x 12" x 12" Natco Double Shell Load Bearing Tile. Double shell construction gives enduring strength and lasting comfort.



"Natco Header Backer Construction for brick exteriors."

For Stucco Exteriors

Where a covering of stucco is desired, Natco Double Shell Load Bearing Tile is used. It has a 12 in. x 12 in. face with interior and exterior walls scored for direct application of plaster and stucco. Furnished in all widths for different thicknesses of walls. Applied to such a tile wall which does not shrink, warp, rust, sag or scale, stucco does not crack or come off. It is the logical wall on which to apply stucco.



Stucco applied to fire safe, permanent walls of Natco Double Shell Load Bearing Tile is held firmly and securely.

Where a Brick Exterior Is Desired

Natco Double Shell Head Backer Tile is recognized by architects and builders as the ideal backing for brick, stone or other material. There are two units used—Natco Backer Tile and Natco Header Tile. The Natco Backer Tile is cut to convenient lengths to allow the brick work or other facing to be bonded into the Natco Header Tile with full header bond at any number of courses desired. The completed walls are light, thoroughly bonded, and at the same time are warmer and dryer than solid masonry walls which rarely become thoroughly dry.

Natco Vitritile

This newest member of the Natco Line is the most attractive material yet devised for finished face walls in basements, laundries, shower rooms, lavatories, and similar places.

Natco Vitritile is a structural tile, suitable for load bearing walls or partitions. It is also furnished split, for use as a furring unit.

Walls built of Natco Vitritile need not be plastered or painted. They are unaffected by dirt, grease, chemicals and heat, and are easily kept clean and sanitary.

A range of charming shades is available.

Quality

All types of Natco Hollow Tile are made of carefully selected clay, burned under the supervision of graduated ceramic engineers. On every genuine

Natco Hollow Tile the name "Natco" is stamped indelibly for your protection. Look for it.

For Garages

The same qualities which make Natco Hollow Tile so satisfactory for a home make it ideal for private garages. Natco Glazed Double Shell Tex-Tile and Natco Unglazed Double Shell Combed Face Tile are especially suitable.

Write for Further Information

Our Engineering Department is at your service to prepare estimates from your plans or sketches of all Natco Hollow Tile that will be required with costs on any type of home you decide to erect. In addition, we shall make notations on plans or sketches showing how and where the tile is to be used most effectively and economically.



For further details and literature, write to:

NATIONAL FIREPROOFING COMPANY

Fulton Bldg.,
Pittsburgh, Pa.

STRUCTOLITE

Insulating Load-Bearing Tile

Made by

UNITED STATES GYPSUM COMPANY

300 West Adams St., Chicago, Illinois

BRANCH OFFICES

New York, N. Y., 17 State St.
Buffalo, N. Y., Ellicott Square Bldg.
Boston, Mass., 100 Bolyston St.
Washington, D. C., 604 Lenox Bldg.
Baltimore, Md., 402 Keyser Bldg.
Philadelphia, Pa., Foot of 58th St.

Atlanta, Ga., 1130 Candier Bldg.
Pittsburgh, Pa., 917 Bessemer Bldg.
Cleveland, Ohio, 942 Hanna Bldg.
Cincinnati, Ohio, 808 Atlas Bank Bldg.
Detroit, Mich., 1418 Penobscot Bldg.
Milwaukee, Wis., Grove and Oregon Sts.

Minneapolis, Minn., 402 Thorpe Bldg.
St. Louis, Mo., 1204 Syndicate Trust Bldg.
Kansas City, Mo., 444 Lathrop Bldg.
Omaha, Neb., 1407 W. O. W. Bldg.
Denver, Colo., 603 Denham Bldg.
Los Angeles, Cal., 530 W. Sixth St.

For Other Products see pages as follows: Rocklath 73, Thermofill 91, Sheetrock 109, Gyplap 111.

Description

Structolite Tile are a fireproof, load-bearing tile. They are manufactured without aggregates, are easily cut, and can be nailed into as readily as wood. Standard sizes are 8"x16" face and 6" and 8" in thickness. Both sizes are available in bond tile for backing up brickwork. The 8" unit weighs about 25 pounds and the 6" about 19 pounds. This light weight combined with their smooth surface makes them particularly easy to handle. Manufactured complete under the careful supervision of the United States Gypsum Company, they are uniform in size, shape, strength and quality.

Insulation

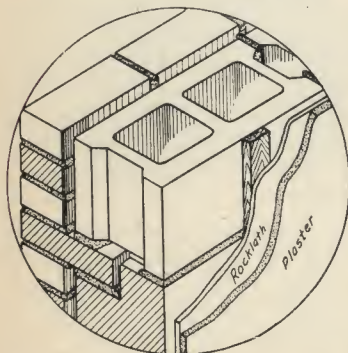
Insulation is an outstanding feature of Structolite tile construction. Modern standards of comfortable living demand insulation. Homes that are warmer in winter and cooler in summer command a higher resale value. The economy of insulation in lower first cost for a heating plant and continued annual savings in fuel, is quickly demonstrated.

Fireproofness

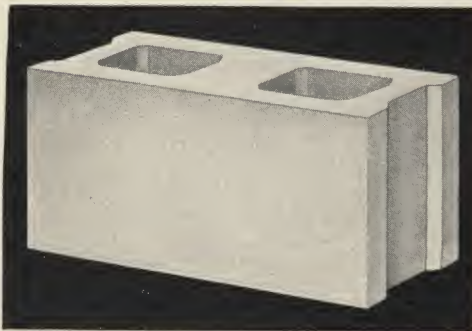
Structolite tile do not burn, will not transmit heat at high temperatures, and do not expand or contract under the action of fire.

Low Up-keep

Manufactured from Gypsum rock by a special process, Structolite develops a strength of two thousand pounds per square inch. The rock-like characteristics are retained and a durable masonry construction with its very minimum of upkeep expense results. Masonry represents strength, quality, and incombustibility which are the important factors in durability.



Wall section showing Structolite Load Bearing Tile used in connection with brick exterior.



Adaptability

Structolite Tile are readily cut with a saw or a mason's trowel and this feature, together with their light weight and nailability, makes them particularly adaptable to different types of period architecture.

Exterior Finishes

Exterior finishes may be of brick, stucco, stone or siding as the architecture may require. Practically any type of architecture or finish can be employed easily and economically.

Value

Structure Tile are economical to use. The finished wall in place generally costs no more than other masonry.

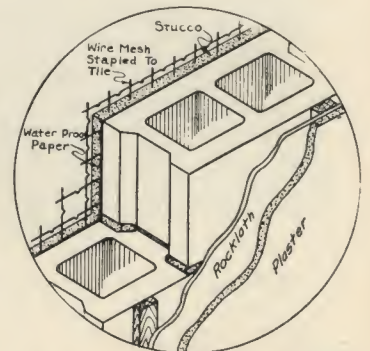
Floors and Partitions

Supplementary to Structolite Tile walls we are in a position to furnish details and literature on fireproof material for floor and partition construction.

Details, Booklets

Details illustrating lintel uses, framing around openings, and general items of construction and further descriptive literature is available on request. A booklet containing 72 designs of splendid architecture arranged in period groups, which have been selected from several hundred submitted in a National Architectural Prize Contest for "Fireproof Homes" of Period Design in Structolite Construction will be sent upon the receipt of one dollar.

Our Engineering Department will give prompt attention to special details or designs involving the use of Structolite Tile. This service is free and and you are invited to avail yourself of its use.



Wall section showing stucco applied over reinforcing mesh and water-proof paper stapled directly to the tile. Furring strips, lath and plaster on the interior.



For further details and literature, write to:

UNITED STATES GYPSUM COMPANY

300 W. Adams St.
Chicago, Ill.

PI-Konveniences

for

Home Builders

Manufactured by

THE FRANK A. PIKE COMPANY

140 Broad St., Rochester, New York

A Concrete Cap in Eight Minutes

Think of it Mr. Contractor and Architect, you can cast a perfect concrete cap with a drip edge from the time you start to put on the form until the cap is finished in just 8 minutes.

This is made possible by the use of the PI-Kap steel form, an adjustable metal form with a range up to and including a cap size 30" x 44" which squares itself and fits perfectly all piers, buttresses or chimneys no matter how out of square or level.

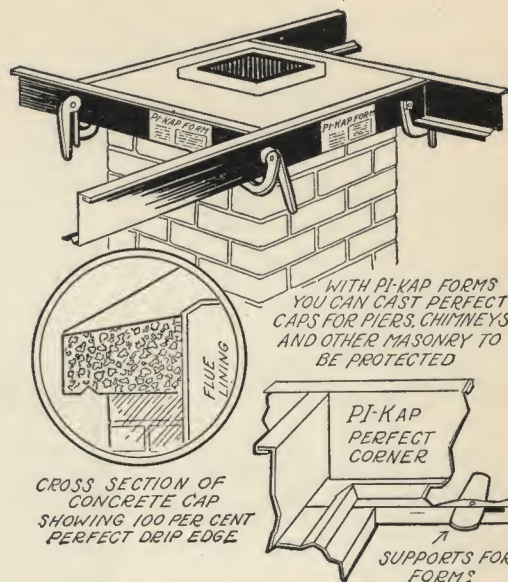
Anyone can apply a PI-Kap steel form in less than one minute, ready for concrete, it requires no bracing and cannot slip or drop after clamps are applied.

The PI-Kap steel form does not rob the cement of water as does the wood form, this leaves the face hard and smooth. It is cheaper to cast a cap with PI-Kap steel forms than it costs to lay up 2 courses of ordinary bricks.

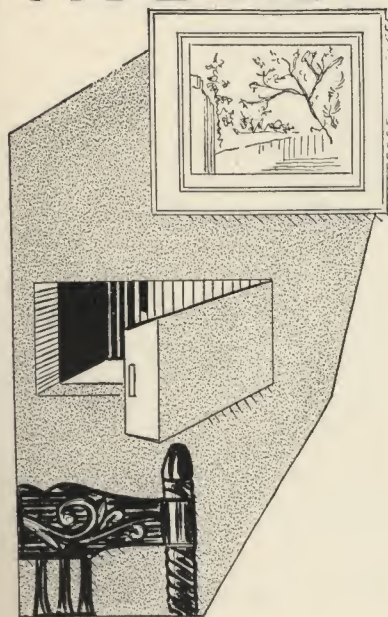
The old method of looking for lumber and nails, borrowing a saw, runs into hours, with the PI-Kap steel forms it takes but 8 minutes.

The Price of PI-Kap steel forms are \$15.00 F.O.B., Rochester, N. Y., and only a few operations will pay for the form which will last a life time.

PI-KAP 8 MINUTE STEEL FORMS



PI-KABINET



The PI-Kabinet, an Invisible Wall Safe

Every home, apartment, hotel, school and other buildings need a safe place for money, jewelry, insurance policies and other valuables and records.

The PI-Kabinet provides a secure and inexpensive receptacle for valuables.

First because it cannot be jimmied or pried open, has a four tumbler lock that cannot be opened unless you have the key and second, because it has a fire-proof outside shell of cast iron with no seams, center is of cellular asbestos, inner liner of steel, all duco finished, it is designed to go into any wall from cellar to attic at no extra expense.

The door is filled with cement or plaster and is finished with same decoration as room. An invisible, fire-proof wall safe made in 2 sizes. No. 545 is for 4-inch stud partitions, No. 465 is for 6-inch stud partitions. The price of the PI-Kabinet either size is \$15.00 F.O.B., Rochester, N. Y.

The PI-Kan—A Sanitary and Odorless Garbage Container

This is a garbage container of the underground type. We furnish the complete outfit ready for use, casing is made of concrete reinforced with steel, the can is made of rust-resisting copper-bearing steel, hot dipped galvanizing after making and the cast iron cover and brass pin on which it turns are also rust-proof. Cover fits tightly, eliminating unpleasant odors and keeping insects and stray dogs

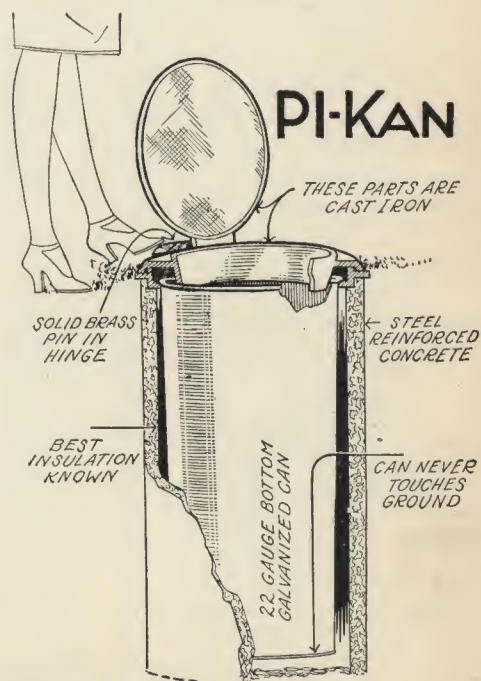
and cats out of garbage. Lever cover opens it at a touch of the foot and cover closes when foot is removed.

A neat, clean, durable, sanitary, odorless and out-of-sight garbage container sold at a low price. Price of the PI-Kan is \$15.00 F.O.B., Rochester N. Y.

All PI-K Products are fully covered by patents and money-back guarantees.

References: Lincoln Alliance Bank.

Dealers wanted. Write for proposition.



For further details and
literature, write to:

THE FRANK A. PIKE COMPANY

140 Broad St.
Rochester, N. Y.

CINDER CONCRETE BUILDING UNITS

Manufactured Under Straub and Bo Patents—Owned by
NATIONAL BUILDING UNITS CORPORATION
 1600 Arch Street, Philadelphia, Pa.

MANUFACTURED BY THE FOLLOWING COMPANIES:

| | | | |
|---|---|------------------------|--|
| ALBANY, N. Y. | Finch & Ostrander, Inc. | MOLINE, ILL. | Moline Cast Stone Co. |
| ALLEGHTOWN, PA. | Hollywood Building Block Co. | MT. POCONO, PA. | L. T. Smith |
| ALTOONA, PA. | Juniata Reconstructed Stone Co., Juniata, Pa. | NEW CASTLE, PA. | Straub Block Co. |
| APOLLO, PA. | Apollo Steel Co. | NEW KENSINGTON, PA. | Straub Block Co. |
| ATLANTA, GA. | Atlanta Cinder Block & Tile Co. | NEW YORK, N. Y. | Cinder Tile Co. |
| BALTIMORE, MD. | Cinder Block Corp. | NORFOLK, VA. | Norfolk Building Block Corp. |
| BINGHAMTON, N. Y. | Straub Building Units, Inc. | NORTH BEIRGEN, N. J. | Hudson Fireproof Block Co. |
| BRAEBURN, PA. | Braeburn Volcano Block Co. | OMAHA, NEB. | Ideal Cement Stone Co. |
| BUFFALO, N. Y. | Burnett-Wilson-Pfohl, Inc. | PHILADELPHIA, PA. | Phila. Partition & Building Block Co. |
| BUTLER, PA. | Shufflin & Green | PITTSBURGH, PA. | Straub Block Co. |
| CAMDEN, N. J. | Concrete Specialties Co. | POTTSVILLE, PA. | Pottsville Building Block Co. |
| CINCINNATI, OHIO | Cincinnati Concrete Corp. | PUEBLO, COLO. | Pueblo Cinder & Cement Products Co. |
| CLARKSBURG, W. VA. | Cindercrete, Inc. | READING, PA. | Berks Building Block Co. |
| DENVER, COLO. | Cinder Block Co. | RIDGEFIELD PARK, N. J. | Bergen Building Block Co. |
| DES MOINES, IOWA | Iowa Concrete Crib & Cement Products Co. | RICHMOND, VA. | Richmond Patent Building Block Corp. |
| DETROIT, MICH. | Detroit Cinder Block & Tile Co. | RIVER GROVE, ILL. | Chicago Granite Co. |
| DETROIT, MICH. | R. E. Hamilton's Sons | ROCHESTER, N. Y. | Rochester Cinder Block Corp. |
| EAST ST. LOUIS, ILL. | Atlas Cinder Block Corp. | ROCHESTER, N. Y. | Schaefer Bros. Builders Supply Co. |
| ELMIRA, N. Y. | Elmira Building Units, Inc. | ST. JOSEPH, MO. | Cinder Block Co. |
| ERIE, PA. | Erie Patent Block Co., Inc. | ST. LOUIS, MO. | Cinder Block Co., Clayton, Mo. |
| ESCANABA, MICH. | Universal Magnesite Products Co. | SEATTLE, WASH. | Concrete Structural Units Co. |
| FAIRMONT, W. VA. | Fairmont Wall Plaster Co. | SELINGSGROVE, PA. | Concrete Products Co. |
| (Sub-licensees and distributors in West Virginia) | | | |
| FLINT, MICH. | Flint Cinder Block & Products Co. | SPRINGDALE, PA. | Brown Building Block Co. |
| FOREST PARK, ILL. | Illinois Concrete Products Corp. | SPRINGFIELD, MASS. | Springfield Sand & Tile Co. |
| GENEVA, N. Y. | Geneva Brick Products Co. | SPRINGFIELD, OHIO | Springfield Cinder Block Co. |
| GREENSBURG, PA. | Building Materials Co. | SYRACUSE, N. Y. | Syracuse Cinder Products Corp. |
| HAMILTON, ONT., CANADA | E. J. Shepard, Ltd. | TARENTUM, PA. | Frank H. Thompson |
| HARRISBURG, PA. | Harrisburg Building Block Co. | TORONTO, ONT., CANADA | Toronto Brick Co., Ltd. |
| INDIANAPOLIS, IND. | Straub Cinder Block Co. | UNIONTOWN, PA. | Concrete Specialties Company |
| JAMESTOWN, N. Y. | Jamestown Block & Tile Co. | WARREN, OHIO | Straub Patented Block Co. |
| JERSEY CITY, N. Y. | Cinder Brick and Tile Co. | WARREN, PA. | Wilson-Wetmore Lumber Co. |
| JOHNSTOWN, PA. | Art Stone Block Co. | WASHINGTON, D. C. | Washington Concrete Products Corp. |
| KANSAS CITY, MO. | Cinder Block Co. | WAYNESBURG, PA. | J. E. Drury |
| LANCASTER, PA. | Lancaster Concrete Tile Co. | WESTFIELD, N. J. | Hudson Fireproof Block Co. |
| LANSING, MICH. | Universal Block Co. | WILKES-BARRE, PA. | Nepenna Building Materials Co. (Kingston, Pa.) |
| LEMOYNE, PA. | Pennsylvania Concrete Roofing Tile Co. | WILLIAMSPORT, PA. | Delvan Block Co., So. Williamsport, Pa. |
| LEWISTOWN, PA. | James L. Shreffler | WILMINGTON, DEL. | Cinder Block Corp. |
| McHENRY, ILL. | Frett Brothers | YORK, PA. | York Patented Building Block Co. |
| MANORVILLE, PA. | Eddy Brothers | YOUNGSTOWN, OHIO | Peter Klug |
| MIDLAND, MICH. | John A. Whitman | YOUNGSTOWN, OHIO | Garland Block & Sand Co. |
| MILWAUKEE, WIS. | Cindercrete Products Corp. | | |

Products

FOUNDATION and WALL BEARING BLOCKS; PARTITION TILE; BRICK; REINFORCED LINTELS; SILLS; CHIMNEY BLOCKS; FLOOR ARCH BLOCKS.

Patents and License

The manufacture and sale of Cinder Concrete Building Units is protected by United States Patent No. 1,212,840 to Francis J. Straub, and United States Patent No. 1,466,083, to Sigurd Bo. Other patents pending. The Straub patent has been broadly sustained by unanimous decision of the United States Court of Appeals. All plants work under license agreement with NATIONAL BUILDING UNITS CORPORATION.

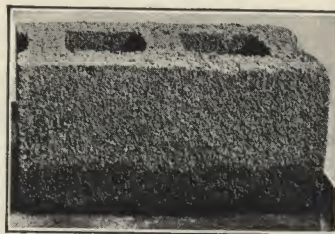
Advantages

Economical—The lightness of the product effects a 20 to 40% saving over common brick, and 5 to 15% saving over clay tile. One 8x8x16-in. block displaces 12 brick and requires about one-quarter the mortar. Plaster is applied direct to cinder block, and the trueness of the wall, together with the texture, facilitate the application. No nailing strips or plugs are necessary. Other economies will be found under other subheadings.

Strong—Cinder Concrete Building Units have a crushing strength of more than 800 lbs. per sq. in. of gross area. Tests of Cinder Block walls at Columbia University show that the material has the highest structural efficiency of any masonry building units.

Tough—The product is not brittle; will stand rough handling without breakage.

Light—From 30% to 40% lighter than sand concrete. The hollow units are 50% to 60% lighter than brick. This



Dampproof

Cinder Building Block partly immersed in water, illustrating the low capillary attraction of the material.

speeds up the laying and reduces the dead load of the wall.

Fireproof—There is no masonry material of greater fire resistance. This has been brought out by official tests made for the National Board of Fire Underwriters as well as by many demonstrations and actual fires.

Damp Proof—No moisture is drawn through the wall. Dryness is assured, and it is safe to plaster direct without furring or lathing. Through mortar joints should be avoided; mortar should be applied on the outside and inside webs only, and not on the cross webs.

Time Proof—Age increases the strength of Cinder Concrete Building Units. They are not affected by freezing or temperature changes. This is due to the toughness and the cellular structure of the material.

Insulating—The material has a cork-like structure which gives the wall a high degree of insulation. This means economy of heating, is conducive to the comfort of the house, and prevents dampness in the walls.

Sound Proof—Cinder Concrete Building Units have a high degree of sound absorption, and reduce the reflection and transmission of sound. They are extensively used in schools, hospitals, churches and the like, where the acoustic design is of particular importance.

Nailing—As good as wood for nailing; holding power is equal to yellow pine. Nails never rust. This means the elimination of all nailing blocks.

Easily Cut—Cinder Concrete Building Units are furnished in all fractions. They can, however, be readily cut and they can be chased and channeled for pipe and conduits without fracture.

Details, Catalogs and Data

Each plant is in position to submit details and give required information to architects, engineers and builders. Address nearest plant or the head office of the NATIONAL BUILDING UNITS CORPORATION.

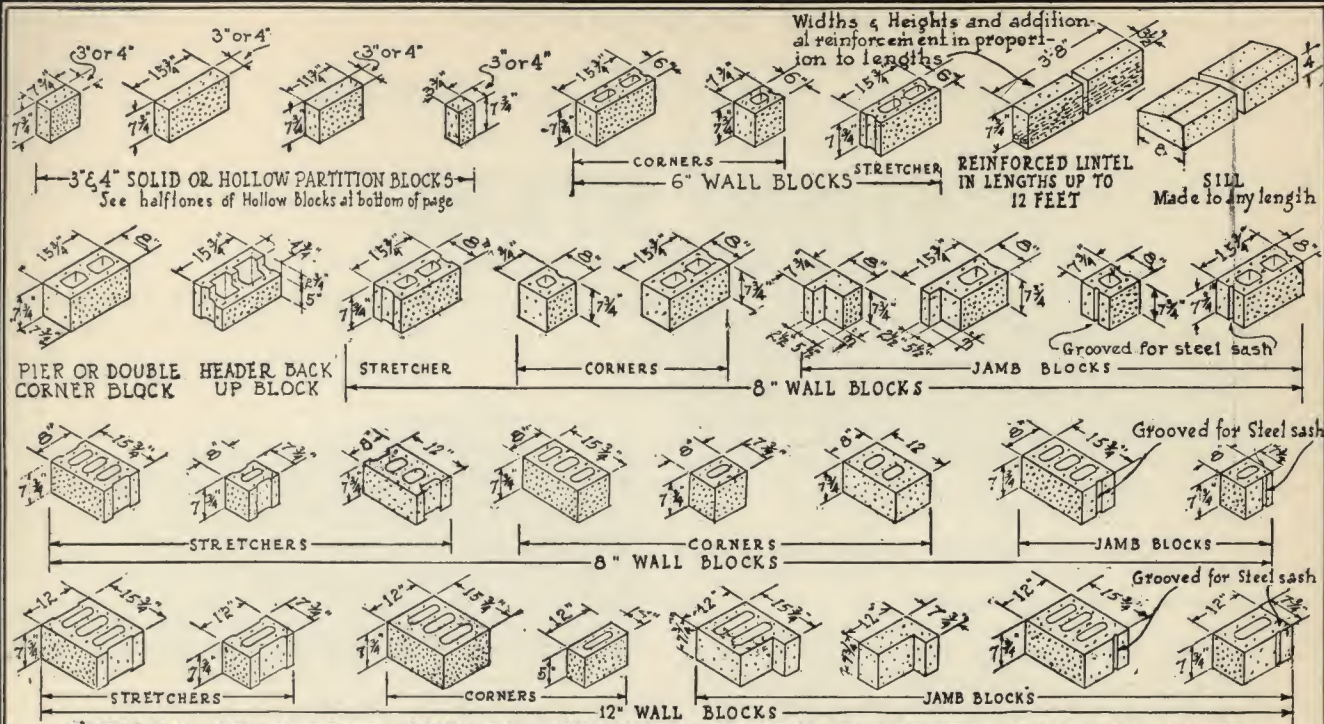


For further details and literature, write to:

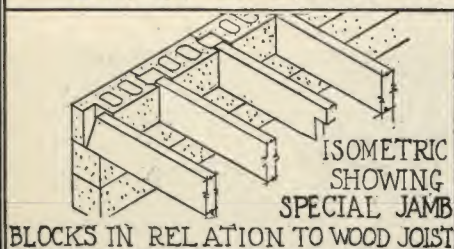
NATIONAL BUILDING UNITS CORPORATION

Philadelphia, Pa.

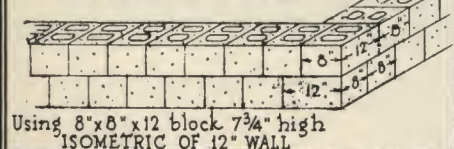
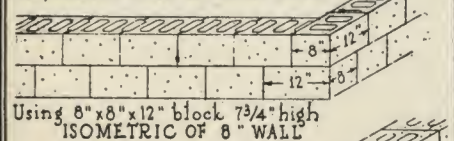
Cinder Concrete Building Units (Cont'd)



DETAILS OF STRAUB AND BO PATENTED CINDER CONCRETE BUILDING UNITS



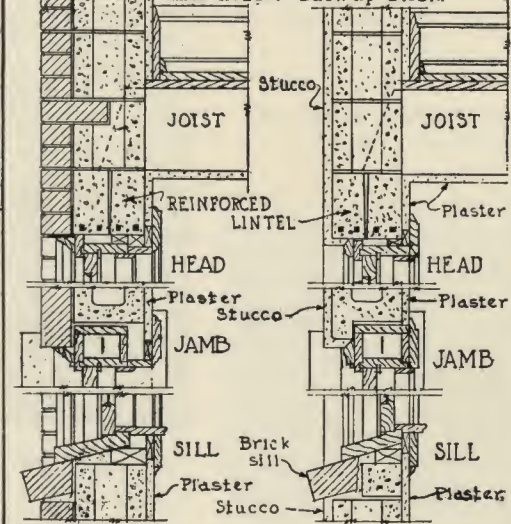
Use flush end block as corner block



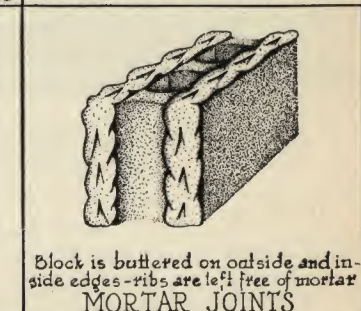
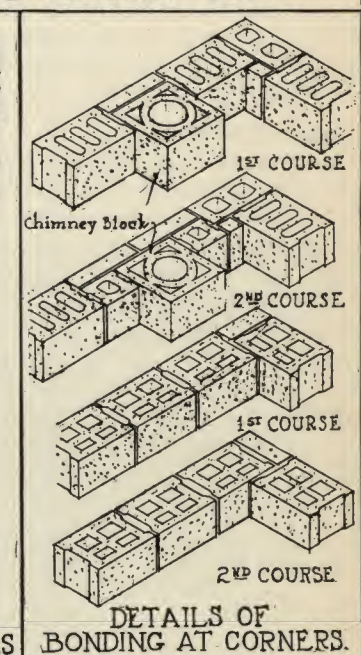
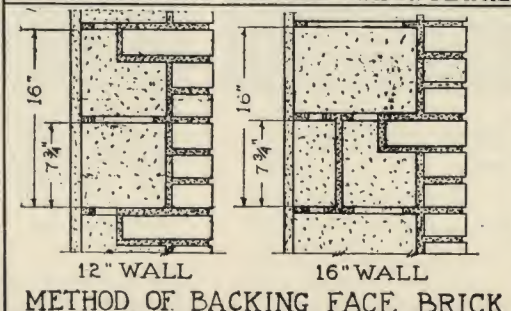
DETAILS OF BONDING AT CORNERS



NOTE-Metal ties may be used instead of brick header and header back-up block.



WALL SECTIONS SHOWING WINDOW DETAILS



DRAWING

SIZES AND USES OF CINDER CONCRETE BUILDING UNITS

1

For further details and literature write to:

NATIONAL BUILDING UNITS CORPORATION

Philadelphia, Pa.

Sheet Steel For Home Building Material and Equipment

Manufactured by Members of the
SHEET STEEL TRADE EXTENSION COMMITTEE
332 Oliver Bldg., Pittsburgh, Pa.

SHEET STEEL

for Strength Safety Beauty and Economy

Sheet Steel

This is the age of sheet steel in house construction and equipment because sheet steel so satisfactorily and economically meets an ever-increasing number of requirements, always with a promise of long life and durability. Steel is rapidly insinuating itself into every room in the modern home. Not only does it play a conspicuous part in the actual construction of residences, but it also is available in the form of household furnishings and equipment of every description and of superior character. Thousands of fabricators form sheet steel into the most intricate, attractive and serviceable shapes, and in finishes of unexcelled beauty and durability. Information regarding sources of supply for any steel product will be furnished promptly by this Committee upon request.



This trademark stenciled on galvanized Sheet Steel is definite insurance to the buyer that every sheet so branded is of prime quality—full weight for the gauge stamped on the sheet—never less than 28 gauge—and that the galvanizing is of the full weight and quality established by the SHEET STEEL TRADE EXTENSION COMMITTEE specification.

beautiful sheet steel garages have come to reduce the fire hazard in crowded communities. It is recommended, wherever sheet steel is exposed to the weather, that it be kept painted. If appearance is thus maintained no other maintenance will be required. The booklet, "Steel Roofing—Its Use and Application," will be sent free upon request.

Use Adequately

Care should be taken to see that the proper gauge or thickness of sheet steel is selected. For illustration, steel roofing should never be thinner than No. 28 gauge. In the case of galvanized sheets, heavier gauges carry heavier coatings which further prolong satisfactory service.

Exterior Building Uses

For exterior residential uses sheet steel is economical and lasting. It is used as roofing in the form of



Residence with roof of pressed sheet steel Spanish mission tile. Entrance portico is also formed and fabricated of sheet steel.

corrugated, V-crimp, standing seam, shingles, or Spanish mission tile. More steel is used for flashings, gutters, down-spouts, elbows and other roof drainage fittings than all other materials combined. Sheet steel is widely used in the form of lath as a basis for exterior walls of stucco finish. Artistic and architecturally



Standing seam sheet steel roof on seven gable house. This steel roofing has been in service more than 30 years.

Lightning Safety

Because sheet steel is a perfect electrical conductor, it insures against damage from lightning when used for roofing and electrically bonded and grounded.

Grounding

To ground a steel roof it is necessary only to connect the roof and the moist subsoil of the earth with a pipe, rod or cable. Detailed instructions for grounding will be furnished by the Sheet Steel Trade Extension Committee free upon request.

Garden Use

Sheet steel in forms ranging all the way from bird houses to pergolas is used for garden embellishments in structures of both practical and decorative character.



For further details and literature write to:

SHEET STEEL TRADE EXTENSION COMMITTEE

OLIVER BUILDING,
PITTSBURGH, PA.

Sheet Steel For Home Building Material and Equipment

(Continued)

Interior Building Uses

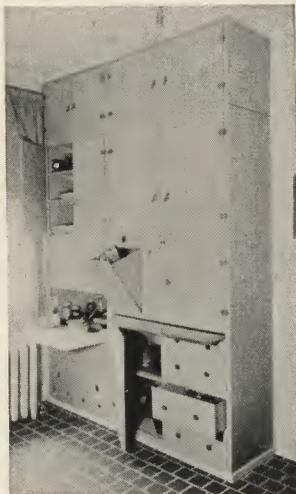
Sheet steel in the form of metal lath makes a superior base for plaster. Plaster on steel lath is less liable to cracks and abrasions. Modern homes are being built today with steel molding, trim, stairs and doors in the most attractive and lasting wood grain finishes of photographic accuracy. Built-in kitchen cabinets, medicine cabinets, cupboards, lockers, radiators and radiator covers maintain their beauty and serviceability for a lifetime when made of sheet steel. Steel ceilings can be had in many artistic designs. Laundry tubs in white porcelain enamel are available in sheet steel. Clothes dryers of sheet steel enable the housewife to laugh at rainy washdays.



The stucco walls of this beautiful residence are applied on a base of "expanded" sheet steel lath.

Household Uses

Sheet steel enters the modern home in many forms. Beds and bedroom furniture, chairs, tables, cupboards, kitchen cabinets, cooking utensils, refrigerators and wardrobes are only a few of the many household items that can be obtained in sheet steel. Because it can be had in any desired finish, ranging from ordinary paint or lacquer to vitreous enamel, and in any desired color, sheet steel is finding broader and broader adoption in the form of household equipment and appliances. It promotes sanitation, lessens labor and reduces the fire hazard.



All-steel inbuilt cabinets for kitchen. A great variety of steel equipment for in-building is available in the market.

The All-Steel House

The steel house is one of the most recent outstanding developments in the wider use of steel. Starting with a steel frame, it is now possible to build a house as nearly fireproof as the most modern skyscraper, and at the same time, obtain the beauty and charm so desired in residential construction. This is made possible by the development of steel lath, steel doors, steel molding and trim, steel windows, steel roofing and all manner of built-in steel equipment.

Quality and Service

The following are a few of the qualities that are responsible for the phenomenal increase in the use of sheet steel:



All-steel frame for residence at Forest Hills, L. I.

- 1—It combines strength with lightness in weight.
- 2—It is durable.
- 3—It is easily formed into the most intricate, serviceable and artistic shapes.
- 4—It lends itself to any desired finish.
- 5—It is readily obtainable and easy to install.
- 6—Its high salvage value makes it extremely economical.

Fire Safety

Sheet steel affords a high degree of fire safety in residence construction. Sheet steel confines fires, retards fires and prevents fires.

Service to Builders

The Sheet Steel Trade Extension Committee, an educational and promotional organization founded for



Sheet steel pergola.

the purpose of improving and extending the uses of sheet steel, will enjoy the opportunity of furnishing, without obligation, any desired information concerning sheet steel and sheet steel products for use in connection with home building, furnishing and equipping. Specific inquiries regarding possible uses of sheet steel in given applications will be answered in detail, and requests for information regarding sheet steel products will be forwarded to all manufacturers of the type of product in question, without charge or delay. Please regard this as a service organization ready and anxious to assist in any way possible in promoting the utmost utility and service of sheet steel for all phases of home building.



For further details and literature write to:

SHEET STEEL TRADE EXTENSION COMMITTEE

OLIVER BUILDING,
PITTSBURGH, PA.

CELOTEX LATH

AS A BASE TO RECEIVE PLASTER

Celotex Lath provides better plastered walls and insulation combined. It is applied by the lather. The use of Celotex Lath as a base to receive plaster allows for a new low cost of insulation. It performs the dual function of a lath base for plaster, and also that of insulator for building walls. Therefore when a lather installs a job of Celotex Lath he automatically completes a job of insulation.

Properties

SIZE: 18" x 48"—6 sq. ft.

WEIGHT: $3\frac{1}{2}$ lbs. per lath of 6 sq. ft. Lath bundled, 15 to the bundle, 90 sq. ft., or 10 sq. yds. per bundle. Gross weight of Lath bundle approximately 60 lbs.

All joints beveled which provides additional reinforcement of plaster at every joint line. Horizontal joints shiplapped, providing tight walls, keeping wet plaster free from wood framing members. Celotex Lath is provided with a rough, fibrous surface, allowing for mechanical "key" and additional reinforcing of plaster on the bond line.

Insulating value .33 B.t.u.

Material

All surfaces to be plastered shall be covered with Celotex Lath. The work of application shall be done in accordance with the standard specifications of The Celotex Company, governing the application of Celotex Lath.

Specifications Governing Application

All framework over which Celotex Lath is to be applied shall be of a good grade of seasoned lumber properly braced and erected in accordance with the architect's specifications.

The Lath shall be securely attached to the framing by nailing with special blued, sterilized

plasterboard nails, using 5 nails per lath at each stud or joist.

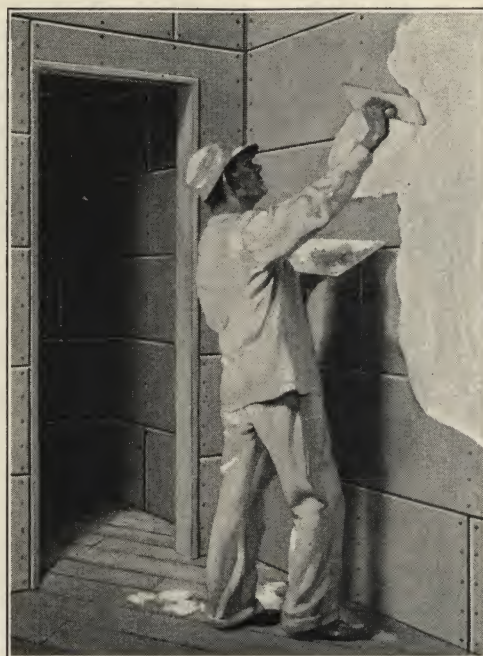
The Lath shall be applied with beveled edges faced out so as to provide an extra "key" for reinforcement of plaster at all joints.

Where cutting of the Lath is necessary, it shall be done by scoring with a lather's hatchet and breaking along the line of scoring.

The Lath in each course shall be so laid up as to break joints with the Lath in the preceding course, and where Lath join or intersect at studs or joists, 5 nails shall be used for securing each Lath to the stud or joist.

Where piecing out is necessary it shall be done with strips of Celotex cut to size, or with pieces of metal lath or wire mesh. Do not use wood strips or wood lath for piecing.

All exterior angles shall be reinforced with corner beads. All interior angles shall be reinforced with strips of metal lath or wire mesh securely stapled in place.



On inside walls and ceiling, plaster is applied directly to the surface of Celotex Lath. This eliminates other forms of lath and gives stronger, insulated walls; less apt to crack and free from rows of lath marks.

Plastering on Celotex Lath

Do not moisten or wet Celotex Lath.

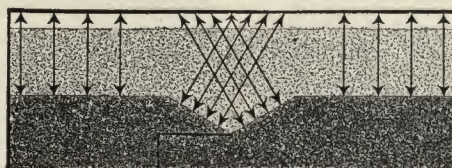
Plastering shall be done with gypsum plaster containing not more than 10 per cent of lime. If neat gypsum plaster is used, mix one part with not more than two parts of clean, coarse, sharp sand, free from loam or other foreign material. Sand should conform to the American Society for Testing

Materials, censored as follows: "When dry, not more than 6 per cent by weight, shall be retained on a No. 8 sieve (8-mesh); not less than 80 per cent by weight shall be retained on a No. 50 sieve; and not more than 6 per cent by weight shall pass a No. 100 sieve."

For Other Celotex Products see pages: House Insulation, 87-89; Sheathing, 110; Interior Finish, 437.

BEVELED EDGES

Reinforce the Plaster At All Joints



The enlarged cross-section shows how the bevel edge gives a long line of diagonal reinforcing through the plaster at all joints.

ROCKLATH ^{U S} PLASTERS - PLASTINT

The FIREPROOF LATH



Manufactured by the

UNITED STATES GYPSUM COMPANY

300 West Adams St., Chicago, Illinois

BRANCH OFFICES

New York, N. Y., 17 State St.
Buffalo, N. Y., Ellicott Square Bldg.
Boston, Mass., 100 Bolyston St.
Washington, D. C., 604 Lenox Bldg.
Baltimore, Md., 402 Keyser Bldg.
Philadelphia, Pa., Foot of 58th St.

Atlanta, Ga., 1130 Candler Bldg.
Pittsburgh, Pa., 917 Bessemer Bldg.
Cleveland, Ohio, 942 Hanna Bldg.
Cincinnati, Ohio, 806 Atlas Bank Bldg.
Detroit, Mich., 1418 Penobscot Bldg.
Milwaukee, Wis., Grove and Oregon Sts.

Minneapolis, Minn., 402 Thorpe Bldg.
St. Louis, Mo., 1204 Syndicate Trust Bldg.
Kansas City, Mo., 444 Lathrop Bldg.
Omaha, Neb., 1407 W. O. W. Bldg.
Denver, Colo., 603 Denham Bldg.
Los Angeles, Cal., 530 W. Sixth St.

For Other Products see pages as follows: 66, 91, 109, 111.

Rocklath

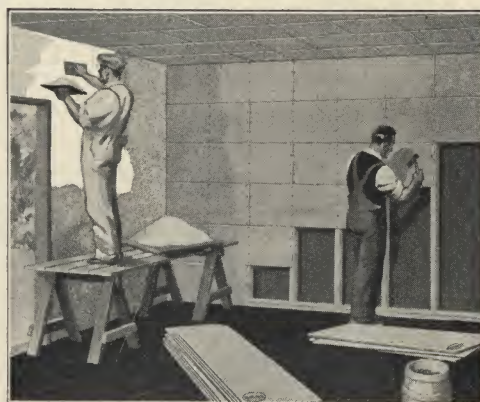
Rocklath is a gypsum lath to be used as a base for gypsum plasters. Each sheet is covered with a tough fibre, specially made to form a perfect bond with the plaster.

Sizes: Rocklath is manufactured in two sizes—16" by 32" and 16" by 48"—uniformly $\frac{3}{8}$ " thick. Each unit is easily handled and for convenience and protection in shipping, the boards are packed in bundles—six sheets to a bundle.

Advantages: (1) Rocklath does not burn or transmit fire. (2) It does not warp or buckle. (3) Gypsum Plaster bonds to it securely. (4) As no "keys" are necessary, Rocklath saves plaster. (5) Rocklath is always of A-1 quality. (6) It is easy to handle and is quickly applied.

U S Plasters and Lime

United States Gypsum Company wall plasters, finishes and hydrated lime are well known for a dependability and uniformity which is assured by the use of the finest materials obtainable and an experience of more than twenty-five years of plaster manufacture. To make identification easy, U S G Plasters are packed in distinctive Red Top bags.



The U S G line includes cement, wood fibre and prepared plasters; Bondercrete for concrete; Ivory Keene's Cement; Ivory and Grand Prize Hydrated Finishing Lime and a complete line of prepared finishes, gauging, moulding and casting plasters.

Plastint

Plastint is a colored finishing plaster offered in nine shades and white. The material is as easy to apply as ordinary finish and remarkably beautiful single or blended color effects in any preferred texture can be produced by any competent plasterer.

As all ingredients, including color, are mixed-in by machine at the mill, Plastint is ready for use with the addition of water only. Improper mixing and variation in color are thus eliminated.

The use of Plastint saves both time and money as walls and ceilings require no further decoration. Plastint may be restored to its original beauty after several months of service by washing with soap and water. If new colors are desired, paint may be applied in the same way as on ordinary plaster walls.



For further details and literature, write to:

UNITED STATES GYPSUM COMPANY

300 W. Adams St.
Chicago, Ill.

For Plaster

STEELTEX

For Stucco



1 STEELTEX Reinforces plaster

Steel is built right into the plaster to reinforce against cracks just as concrete is reinforced. The whole home is strengthened by steel wrapped around each room.



2 STEELTEX Insulates

The heavy STEELTEX backing gives insulation with economy—because it's part of a STEELTEX plaster job, without extra material or labor. Comfort—winter and summer—less fuel.



3 STEELTEX Damp-proofs

And you shut out dangerous dampness with the waterproof STEELTEX backing and special mastic compound. Your walls and ceilings are tight-sealed—every room dry and healthful!



4 STEELTEX Deadens sound

Today, thanks to the double backing, you build quiet, restful rooms when the plaster goes on the walls over STEELTEX! Inside noises greatly minimized—street noises kept out.

STEELTEX for Interior Plaster

Steeltex is a modern reinforcing base for Plaster and Stucco, which combines the four results shown above with one material, one application and with one labor cost.

The material consists of a 2" x 2" fabric or mesh of cold drawn, galvanized, welded steel wires of 70,000 pounds tensile strength per square inch of steel.

Securely fastened to this fabric is a tough, two ply, waterproof backing, which in addition to providing insulation, damp-proofing and sound deadening, insures automatic back-plastering.

Steeltex is manufactured in three styles, namely: Steeltex for Interior Plaster, Steeltex for Stucco and Overcoating and Steeltex for Roofs and Floors (concrete or gypsum).

Steeltex for Stucco and Overcoating is composed of heavier fabric and backing due to the more severe service to which the material is subjected in use and to the fact that the Stucco slab is necessarily heavier in weight being of greater thickness than the interior plaster slab.

Steeltex, both for interior plaster and for stucco and overcoating provides a sound material upon which to

STEELTEX for Stucco and Overcoating

apply both plaster and stucco, in both new construction and for remodeling.

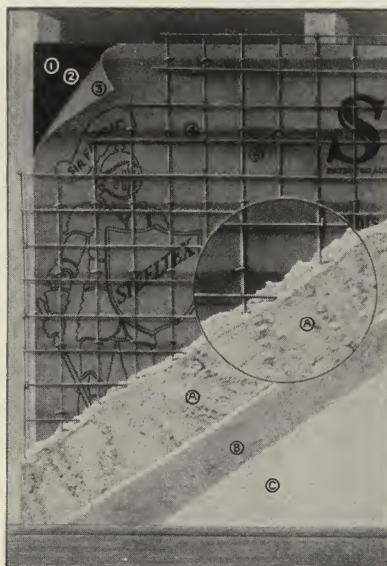
The material is easily handled and applied. It is easy to plaster over and it gives a better finished job than can be obtained with any other material.

While Steeltex is not a cure-all for faulty foundations, superstructure and workmanship, it has a tendency to minimize plaster trouble from other sources through its great strength and durability, by actually building steel right into the plaster wall just as concrete roads are reinforced.

Steeltex for Interior Plaster is furnished in sheets 50" x 52" (2 sq. yds.) 40 sheets to the bundle.

Steeltex for Stucco and Overcoating is furnished in sheets 50" x 52" (2 sq. yds.) 40 sheets to the bundle and in rolls 50" wide by 216' long (100 sq. yds. to the roll).

Detailed information on Steeltex for Interior Plaster, Steeltex for Stucco and Overcoating and Steeltex for Floors and Roofs may be obtained by communicating with the nearest District Sales Office listed at the bottom of this page, or the home office at Pittsburgh, Pa.



Section Showing STEELTEX and How It Is Used

- ① Waterproof backing
- ② Waterproof compound
- ③ Second tough backing
- ④ Furring device
- ⑤ Rust-proofed steel reinforcing fabric
- A Scratch coat of plaster
- B Straightening coat
- C Finishing coat

NATIONAL STEEL FABRIC COMPANY

UNION TRUST BLDG.

DIVISION OF
Pittsburgh Steel Co.

PITTSBURGH, PA.

District Offices

ATLANTA, GA.
Walton Bldg.
NEW YORK, N. Y.
41 East 42nd St.
LOS ANGELES, CALIF.
1736 Naud St.
CHICAGO, ILL.
Straus Bldg.

PHILADELPHIA, PA.
Franklin Trust Bldg.
SAN FRANCISCO
274 Brannan St.
CINCINNATI, O.
Dixie Terminal Bldg.
ST. LOUIS, MO.
Railway Exchange Bldg.

SYRACUSE, N. Y.
1004 Ackerman Ave.
CLEVELAND, O.
Hanna Annex Bldg.
SAN ANTONIO, TEXAS
Builders Exchange Bldg.
DETROIT, MICH.
Dime Bank Bldg.

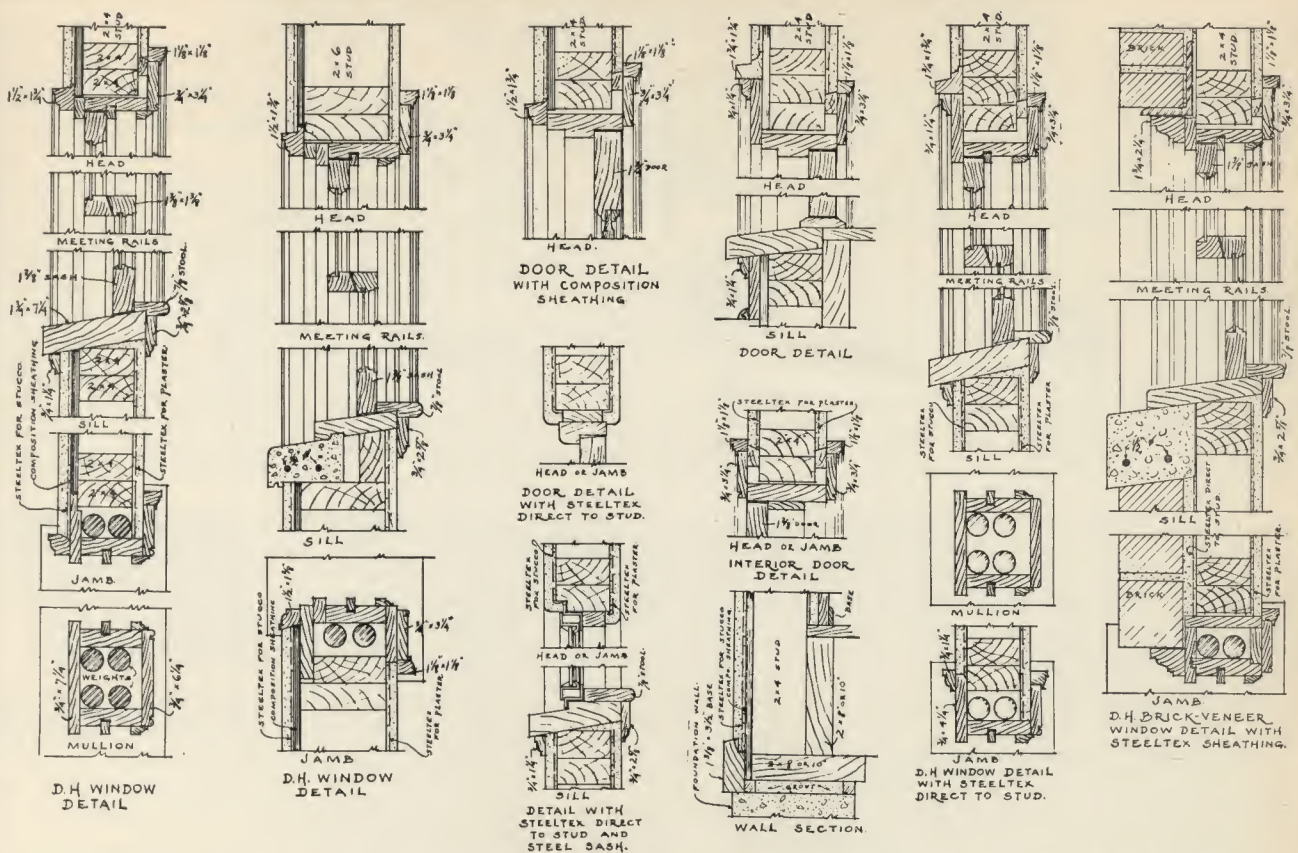


For further details and literature, write to:

NATIONAL STEEL FABRIC CO.

Union Trust Bldg.
Pittsburgh, Pa.

DETAILS OF STEELTEX CONSTRUCTION



DETAILS FOR WINDOW & DOOR FRAMES RECOMMENDED WITH STEELTEX REINFORCEMENT, EXTERIOR STUCCO & INTERIOR PLASTER.

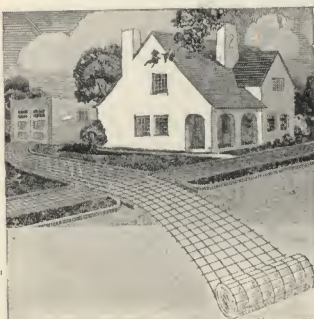
NATIONAL REINFORCING

National Reinforcing is a name which applies to various standard types of electrically welded steel fabric manufactured by the National Steel Fabric Company, which are used for reinforcing cement sidewalks, driveways, cellar and garage floors, for corners and joints where wood lath, insulating lumber and plaster board construction are employed.

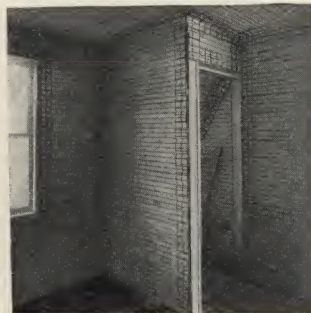
There is a type of National Reinforcing for prac-

tically every reinforcing purpose. The types shown below are merely examples of a few of the uses for which this material is adapted.

Send for complete details on the various styles of Steeltex and National Reinforcing. Address the home office of the National Steel Fabric Company, Union Trust Bldg., Pittsburgh, Pa., or any of the District Offices listed at the bottom of the opposite page



National Reinforcing
for Sidewalks and Driveways



National Reinforcing
for Corners and Joists



For further details and literature, write to:

NATIONAL STEEL FABRIC CO.

Union Trust Bldg.
Pittsburgh, Pa.

7 GENFIRE PRODUCTS for the HOME

Home Office
and Plant
Youngstown, Ohio

Manufactured by the
GENFIRE STEEL COMPANY

Pacific Coast
Plant
Los Angeles

BRANCH OFFICES

Dealers

New York
Chicago
Philadelphia
Cleveland
Los Angeles

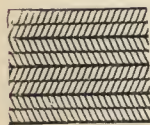
St. Louis
Omaha
Kansas City
Minneapolis



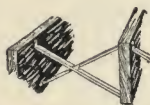
Everywhere

Milwaukee
San Francisco
Portland, Ore.
Dallas
Cincinnati

Syracuse
Atlanta
Pittsburgh
Indianapolis



1. Doublemesh Herringbone, a metal lath having great rigidity and plaster saving features.



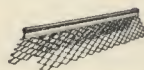
2. Duplex Steel Bridging costs less to install than wood and makes floors vibrationless.



3. Genfire Lintels are strong, light in weight and may be used with any type of walls.



4. GF 16, applied when the foundations are built, assures dry, sanitary basements.



5. Genfire Corner Beads protect exposed plaster corners and give a true straight edge.



6. Steel Basement Windows are weather tight and afford 50% more daylight than wood.

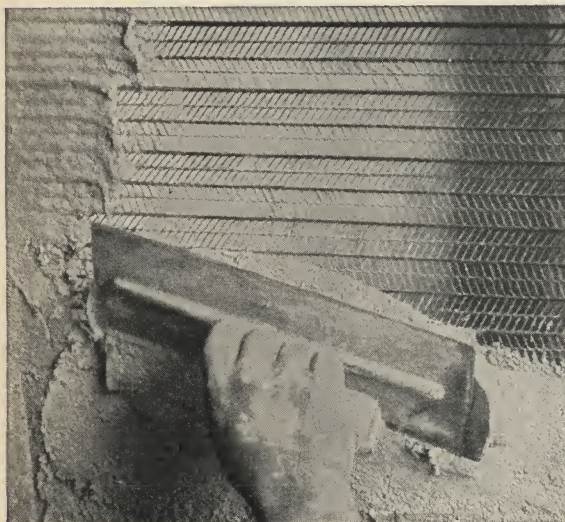


7. Genfire Casements embody every modern feature and conform to any style of architecture.

The seven products shown above have been developed by the Genfire Steel Company to meet the needs of modern, economical residential construction. Being quality products in every sense of the word they contain features found in no other

similar materials, yet the prices are so low that even where first cost is the prime consideration these products may be used with economy. When selecting materials for construction we urge that you write for descriptive literature and prices.

HERRINGBONE DOUBLEMESH LATH



"Herringbone" the walls and ceilings! The same advantages which cause metal lath to be required in large commercial buildings are available to the home builder. This lath pays for itself many times over in savings on decorating cost, freedom from cracks and the fact that it makes a house firesafe and steel reinforced.

Doublemesh Herringbone is an extremely rigid metal lath having *eight steel reinforcing strands embedded in every square inch of plaster*. It is unequaled as a plaster saving lath!

When you "Herringbone" the walls and ceilings of the home you are insuring 80 per cent of the visible interior against cracks, stains unavoidable with wood, and delays in decorating, at the same time strengthen-

ing and making the whole structure firesafe and increasing the resale value. Herringbone Doublemesh meets building code requirements *everywhere*.

GENFIRE CASEMENT WINDOWS

Genfire Casements are the result of many years of research and manufacturing. Their many advantages and beautiful design make them desirable for any type of home and their economy makes them practical. They fit tight and will not swell, shrink or rattle and afford twice the ventilation of the ordinary double hung window. Ventilator may be adjusted to permit desired ventilation during inclement weather and both sides may be cleaned from the inside. The sash frames are fabricated "Z" shaped sections which provide double point contact on all sides, thus insuring weather tightness. Continuous head drip and sub sill provide extra protection against the weather and unite the sections into one solid casement.



For further details and literature write to:

GENFIRE STEEL COMPANY

YOUNGSTOWN,
OHIO

MILCOR Metal Lath, Metal Roofing, Etc.

Made by
MILWAUKEE CORRUGATING COMPANY
Milwaukee, Wis. Chicago, Ill. La Crosse, Wis. Kansas City, Mo.

Used in all types of buildings,
from homes to skyscrapers;
specified by leading architects.

MILCOR
TRADE MARK REG. U. S. PAT. OFF.

Stocked by Sheet Metal Dealers,
Building Supply Dealers, Hardware
Dealers, Jobbers and Distributors.

Home Building Products

Milcor Stay-Rib Metal Lath; Netmesh Metal Lath; "Expansion" Corner Bead; "Expansion" Casings, Base Screed, and Flashing; Concealed Metal Picture Molding; Metal Window Stools, Cove Bases, Chair Rails, Curved Point Base Screed, Bull Nose Corner Bead, etc.; Spanish and American Metal Tile Roofing; Metal Shingles; Metal Ceilings and Walls; Eaves Trough, Conductor Pipe and Fittings; Corrugated and Sheet Roofing; Ventilators and Skylights; Architectural Ornaments; Furnace Pipe and Fittings; Stove Pipe, Elbows, etc.; Hot and Cold Air Registers and Faces, etc.; and other sheet metal building products.

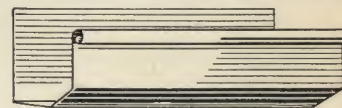
Rain Carrying Equipment—Conductor Pipe, Eaves Trough, Gutters, Etc.



All Milcor Products are made in the famous rust-resisting

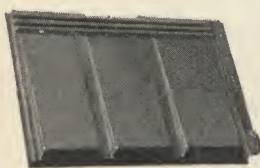


Ornamental and plain rain conductor pipe, trough, gutters and fittings, for all types of architecture. Write for advice on this important detail.



Ingot Iron as well as in Steel, "Coppered Metal", pure zinc or pure copper. Stove pipe and elbows also made in the new "Wilder Metal" (aluminized).

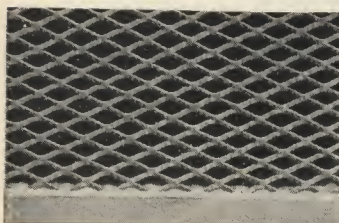
Safe Roofs Are Metal



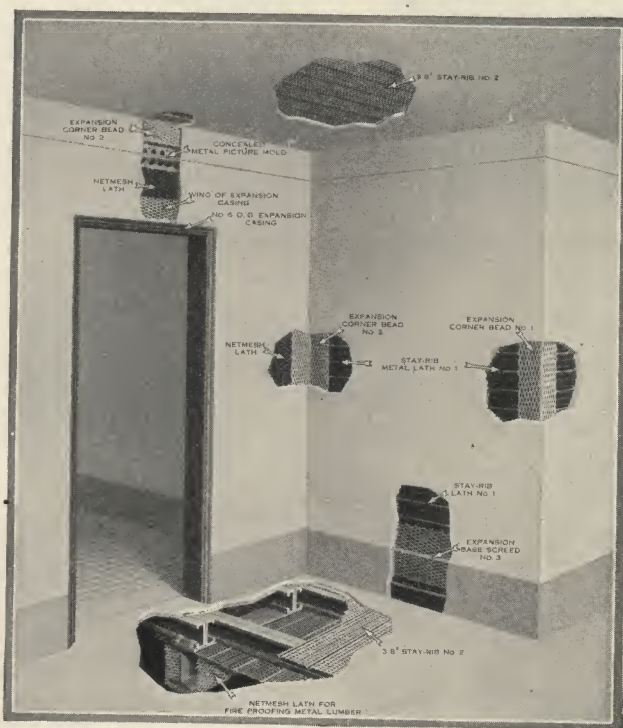
Milcor Spanish Metal Tile is shown on Page 122. Another popular style is the American Metal Tile shown above. It is the safest roof known. All the advantages listed on Page 122 apply also to this style. Write for exact quotations.

Netmesh Metal Lath

Milcor Netmesh Metal Lath insures crackfree plastering and fire safety even when wood-stud construction is used. It offers, at low cost for homes, the same degree of permanence attained in big-building construction.

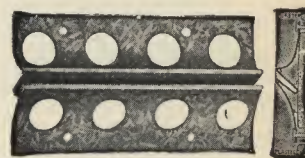


It Pays to Build this Way:



Concealed Picture Molding

This modern Milcor Product has won favor with the best architects and contractors. Embedded in plaster; strong, neat, sanitary. Investigate before you build.

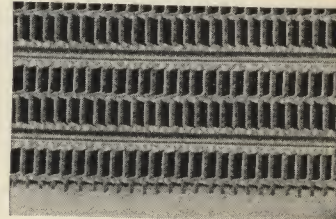


Insist on Firesafe Construction

Milcor construction insures firesafe, crackfree, permanent walls and ceilings at reasonable cost. Maintenance costs are reduced and the resale value of your home remains higher if you build this way. It pays!

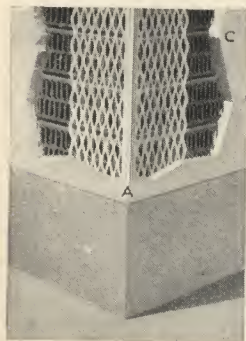
Stay-Rib Metal Lath, No. 1

A great plaster saver. Made in three styles, No. 1 for walls; No. 2 for ceilings; No. 3 for reinforced concrete construction, terrazzo floors, etc. Find out about Stay-Rib and "solid partitions".



"Expansion" Corner Bead

Pat'd June 13, 1922. Used in thousands of homes and in the world's finest big buildings. Insures precisely straight, neat corners and gives unequalled protection to plaster. Corners withstand unusual abuse when thus protected.

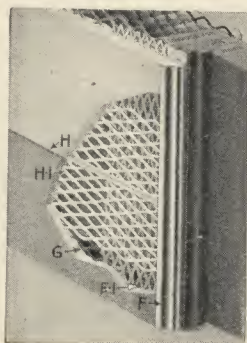


LEFT: "A"—Milcor "Expansion" Corner Bead No. 1 (wings embedded in plaster). "C"—Milcor "Stay-Rib" Metal Lath No. 1.

RIGHT: "F" and "F-1"—Milcor "Expansion" Casings. "G"—Netmesh Metal Lath. "H" and "H-1"—"Expansion" Base Screed (Wing embedded in plaster).

"Expansion" Casings

Pat'd June 13, 1922, and Jan. 6, 1926. Eliminates costly wooden trim around doors and windows. Reduces labor costs. Is sanitary, prevents cracks around doors and windows and greatly improves appearance. Firesafe and economical.



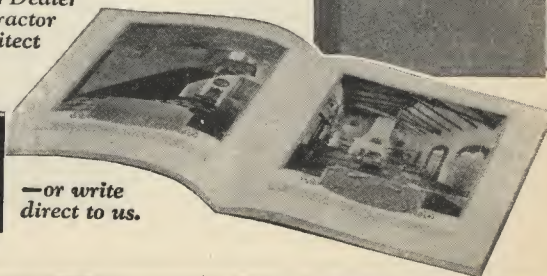
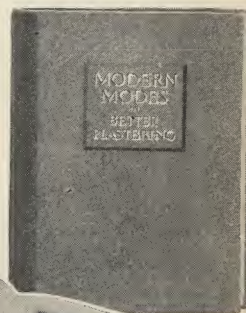
Get These Books Before You Build or Buy

These Milcor books contain valuable advice and charming ideas for the home builder. "Modern Modes in Better Plastering" explains metal lath construction and contains authentic information on period-textures and color-tones in plastering. "Safe Roofs" is another valuable Milcor Booklet, describing Spanish Metal Tile Roofing, American Tile, Metal Shingles, etc. Both books will be sent on request, without cost or obligation to you.

Ask your Dealer or Contractor or Architect



—or write direct to us.



For further details and literature, write to:

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.

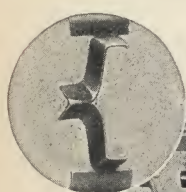
TRUSCON HOME BUILDING PRODUCTS

Manufactured by
TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO

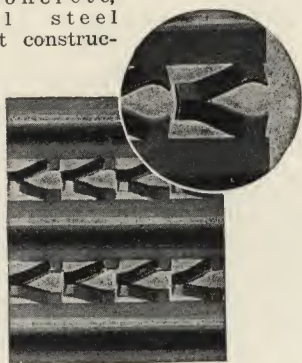
Truscon "A" Metal Laths

Truscon A-Laths are designed for those who prefer a sheet lath yet require the initial bond, permanent key and reinforcing features which are found only in expanded metal laths.

Truscon A-Laths are recommended only for one-side, interior plastering in connection with wood, reinforced concrete, structural steel or steel joist construction.



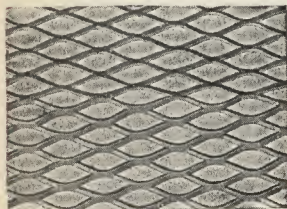
Truscon 1-A Lath
For use where support spacings do not exceed 20 in.



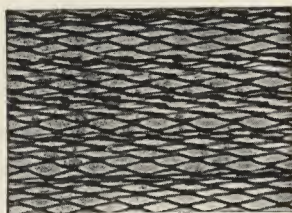
Truscon 2-A Lath
For use where support spacings exceed 20 in.

Truscon Diamond Laths

Diamond lath is a general utility lath for any lathing requirement where supports are not spaced over 18 in. apart. It is used as a base for interior plastering, for solid metal-lath-and-plaster partitions, and as a base for backplastered stucco construction. When used as a base for exterior stucco over sheathing, Truscon Diamond Lath is furnished with 1/2-in deep corrugations running full length of the sheet and spaced 1 1/2 in. apart. These deformations act as furring to bring the face of the lath away from the sheathing, thus allowing the plaster to penetrate through the mesh for an efficient, permanent bond. Truscon Diamond Lath is particularly adaptable for forming fire stops, cornices and false beam work, where ease of bending, yet rigidity in structural formation, is essential.



Diamond Lath



Self-furring Diamond Lath

Truscon Steel Channels



Square Channel



Cold Rolled Channels

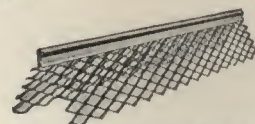
are used for supporting frame work in solid Hy-Rib plaster partitions and hollow steel partitions. They are also used for runner and furring channels for suspended ceilings and furring outside walls.



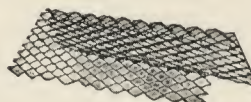
Truscon Plastering Specialties



Rib Steel Corner Bead
Particularly adapted for nail-on work.



Expanded Corner Bead
Used to protect outside plaster corners from shocks and cracks.



Cornerite
Used for reinforcing plaster at inside corners.



Stripite
A plaster base for use in narrow places and around odd-shaped corners.

Stucco-Steel

A stucco reinforcement for use over sheathing. It is expanded from 17 gauge steel, with 1 1/4"x2 1/2" diamonds. Furnished in sheets 8 feet long by either 2 or 4 feet wide weighing 1.8 pounds per square yards. Also furnished in sheets weighing 3.6 pounds per square yard.

Illustration shows a special type of nail used for attaching Stucco-Steel to sheathing. This nail acts as a furring device, and securely locks the Stucco-Steel 3/4 inch from the sheathing.



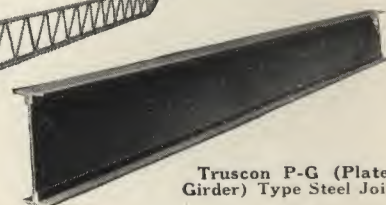
Truscon Stucco Steel

Truscon Steel Joists

Truscon Steel Joist Construction meets every requirement of permanence, economy and fire safety in the home. It is fire proofness in its simplest terms. The joists are laid in place, the metal lath and concrete are applied on top and the metal lath for plaster ceilings is attached to the bottoms of the joists. It costs no more than wood and is really simpler to use because all members are completely shop fabricated, cut to length and fitted.



Truscon O-T (Open Truss) Type Steel Joist



Truscon P-G (Plate Girder) Type Steel Joist

Truscon Mortar Boxes

Made in three popular sizes to fit all requirements. Box Number 1, 2'6" wide, 5'0" long and 10" deep, weighing approximately 90 pounds, will be found ideal for most residential work. Furnished with or without handles.



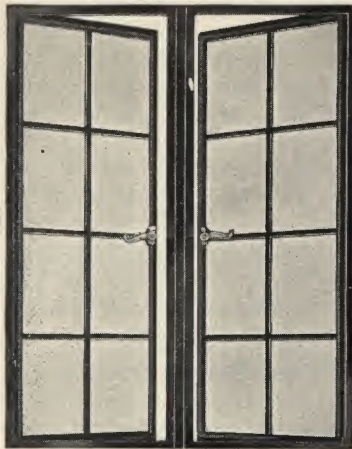
For further details and literature, write to:

TRUSCON STEEL COMPANY

YOUNGSTOWN
OHIO

Truscon Home Building Products (Continued)

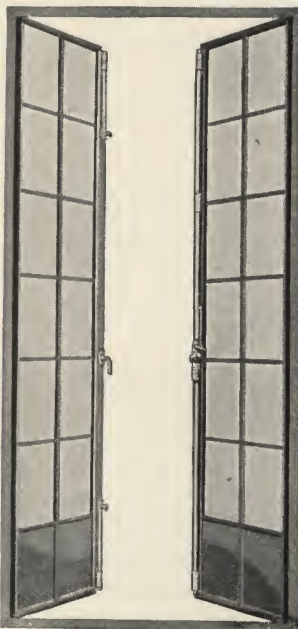
Truscon Copper Steel Standard Casements



Double Unit 4 Light High
Casement Window

Made in standard sizes which combine to fit any size opening. Their graceful lines, small panes, and thin muntin bars make them adaptable to any architectural motif. Their sturdy copper-steel construction makes them firesafe and permanently rust-resistant. They can be easily installed in any weather without skilled labor or special equipment. Their low cost makes them economical for the smallest home.

Truscon Casement Doors



Inside view open
Casement Door

Designed to conform with Truscon Casement Windows. They are attractive and practical for porch and terrace doors and for connecting doors to solariums and conservatories. Made to casement window size, each leaf two lights wide and 7 lights high. The lower lights in each leaf have steel panel. Can be used with the same head drip and frame and the same circle casement transoms used in conjunction with casement windows. Equipped with cremone bolt on one leaf. Handles and trim are of bronze.

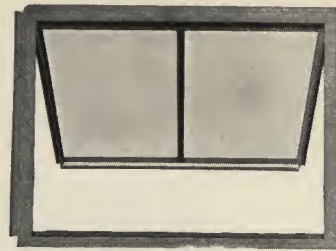
Truscon Copper Steel Standard Lintels



Economical, strong, durable and rust-resisting. Made in seven standard lengths. Deep ribs insure rigidity. Furnished with dip coat of paint. Sizes: 2 ft. 6 in., 3 ft. 0 in., 3 ft. 6 in., 4 ft. 0 in., 4 ft. 6 in., 5 ft. 0 in., 5 ft. 6 in.



Truscon Copper Steel Basement Windows



Concrete Block Size
Truscon Basement Window

Give double the daylight for basement rooms. Made in four standard sizes which can be used for every opening and any type of construction. Made of solid rolled sections that never stick or warp. Firesafe, permanent, weathertight and permanently rust-resistant. Lock automatically. Low in cost and economical. Furnished complete with locks ready for easy installation.

Truscon Standard Steel Doors and Frames

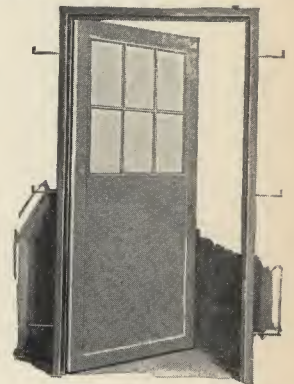
Truscon Standard Steel Doors are made of carefully formed heavy gauge Steel Sections, reinforced at the corners and electrically welded at the joints.

Being made of Copper-Alloy Steel they are firesafe, rust-resisting and will not warp, swell or stick.

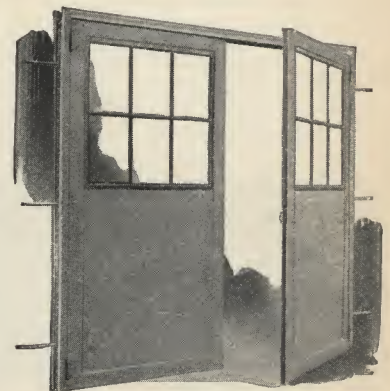
Available in four standard size panels, solid or with sash, which can be used singly or in combinations to fit any size opening.

Truscon Standard Steel Doors are ideal for the garage. They open and close easily because they cannot warp, swell or get out of alignment. Neatly constructed, they harmonize with any type of architectural treatment.

The furnace room is recognized as the biggest single source of fire in the home. Its comparatively remote location permits fire to gain headway without discovery. It is wisdom to construct this room of firesafe materials that will confine the flames and check their progress. A Truscon Standard Steel Door at the furnace room entrance is added insurance against basement fires.



Single Swing Type



Double Swing Type



For further details and literature, write to:

TRUSCON STEEL COMPANY

**YOUNGSTOWN
OHIO**

WHEELING ARCH LATH

New York
Philadelphia
St. Louis
Kansas City

Made by
WHEELING CORRUGATING COMPANY
WHEELING, WEST VIRGINIA

Chicago
Chattanooga
Minneapolis
Richmond

Products

Wheeling Arch Lath, Expanded Metal Lath, Hand-Dipped Conductor Pipe, Roofing Ternes, Spanish Metal Tiles and Fixtures, Metal Shingles, Metal Ceilings, Metal Corner Beads, Base Scream and Picture Moulding. For description of other Wheeling products for home and building construction see page 282.

Why Arch Lath for the Home?

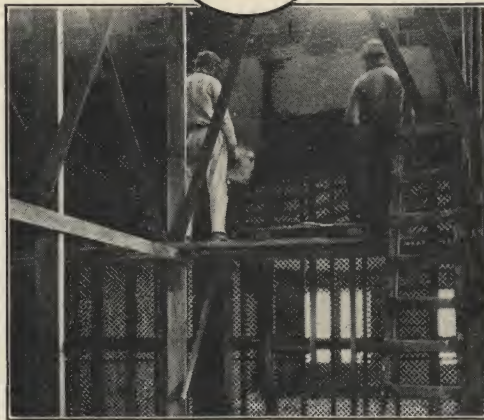
The building of a home, large or small, is so often the result of years of planning, that to construct other than along permanent lines is to sacrifice much comfort and satisfaction. Wheeling Arch Lath is fabricated from a solid sheet of steel—no metal is wasted. This means that the sheets of lath are more rigid—easier to handle and erect and make a more substantial plaster base. The plasterer is especially enthusiastic over this rigidity of sheet because it enables him to work faster and get better results. It also insures a more even distribution of plaster, making walls and ceiling uniformly resistant to fire and cracks.

Protection Against Fire

Paramount in importance to all home builders and home owners is safety from fire. The home must be a refuge and a protection or it falls short of its purpose. Therefore it should be built to endure and of materials that reduce so far as is possible any danger of loss of life and property by fire. Arch Lath enables the home builder to adhere to such specifications with full assurance of fire safe walls and ceilings because it is a lath which comes nearer than any other to being a solid sheet of fireproof steel.

A Double Back Lath

Due to its distinctive arch design, Wheeling Arch Lath grips the plaster from many angles, producing a perfect key. The plasterer realizes the value of a perfect key, for in the case of Wheeling Arch Lath it enables him to apply the second coat of plaster over the first



or scratch coat without delay. The first coat becomes firm and dry almost immediately. By applying one coat of plaster over another coat, without delay, the time and labor required for removing and re-erecting scaffolds is *saved*. And yet this is but one of the many features of Wheeling Arch Lath that have a direct influence on its low plastering cost.

New Plaster Saving Qualities

The openings or perforations in Wheeling Arch Lath are so designed as to permit only the *correct* amount of plaster to squeeze through. This eliminates piling up of plaster between the walls; a loss which is not always recognized

because it is concealed. At the same time it insures uniform embedding of metal in the plaster. To secure rigidity of construction without plaster or material waste, is to get the most from lath, and this is what Wheeling Arch Lath enables you to do.

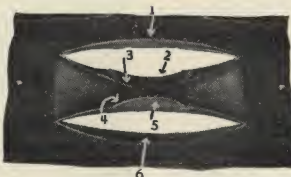
Costs Less to Erect

Wheeling Arch Lath is supplied in sheets that are 27 inches wide instead of the customary 24-inch widths. This means a saving of 12½% in the cost of erecting—the lather covers 12½% more surface with the same effort.

The usual excessive overlap of laths increases material costs without providing additional strength. The true, stiff edges of Wheeling Arch Lath, together with the rigidity of sheet, make excessive overlap unnecessary.

True Lath Economy

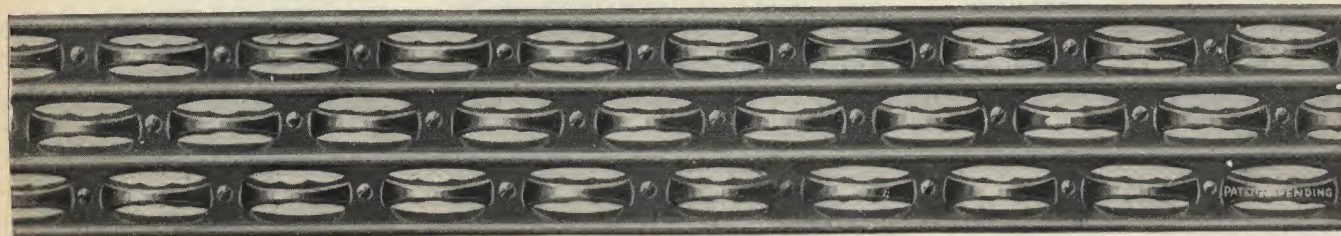
Wheeling Arch Lath occupies a unique position in the metal lath field. Heretofore, only inflammable types of lath have been considered practical for small homes because of low first cost. However, the real cost of any lath is determined by the finished plastering costs. In such costs are found the reason for Wheeling Arch Lath popularity in small home building. Wheeling Arch Lath is a plaster saver—a time saver—a labor saver and a material saver. It is practical for small home construction because it provides permanent, fire-resisting walls and ceilings at no extra cost.



A close-up view of the Wheeling Arch design. Note that the metal grips the plaster from many angles. The illustration above shows but a small section of the whole sheet of Arch Lath, in reduced size.

Specifications

Size of sheets, 27x96 inches. Packed 10 sheets per bundle, 20 sq. yds. Weight, painted, 4.5 lbs. per sq. yd. Weight galvanized, 5.2 lbs. per sq. yd. Black paint and pure zinc coated finishes.



For further details and literature, write to:

WHEELING CORRUGATING COMPANY

WHEELING,
W. VA.

BEAVER AMERICAN PLASTER

GYPSUM PLASTERS AND OTHER GYPSUM PRODUCTS

Manufactured by

THE BEAVER PRODUCTS COMPANY, Inc.

Thorold, Ont.

BUFFALO, N. Y.

London, Eng.

SALES OFFICES:

Atlanta, Ga.
1303 Candler Bldg.

Kansas City, Mo.
12th St. and Crystal Ave.

Chicago, Ill.
2246 W. 49th St.

New York, N. Y.
110 E. 42nd St.

Minneapolis, Minn.
415 Lumber Exchange

For Other Products See Pages:

Plaster Wall Board (107)

Fibre Wall Board (106)

Roofings (130)

Insulating Board (86)

Gypsum Products

Gypsum Plasters (Hard Wall Plasters), which include: Gypsum Cement Plasters, Unsanded (Hair Fibred or Unfibred); Gypsum Wood Fibred Plaster; Gypsum Plasters for Concrete surfaces.

Gypsum Finishing Plasters, which include: Prepared Gypsum Finishing Plaster; Gypsum Gauging Plasters; Gypsum Moulding and Casting Plasters; Best Bros. Keene's Cement.

Gypsum Lath and Block.

Beaver Thermocrete (Mineral Insulation).

Quality and Service

The American Cement Plaster Division owns and operates 7 of the best and largest gypsum deposits in the United States, located at the principal gypsum producing centers. This company can thus at all times advantageously serve all principal markets on short hauls and low freight at the most economical costs.

Guarantee

All these products are fully guaranteed as to quality and give the best results when used in accordance with the company's specifications.

Plasters

Classification—Beaver American and Southern American gypsum plasters (sometimes called hard wall plaster, patent plaster, cement plaster, etc.), may be broadly divided into two classes: (1) Plasters for base coats; (2) plasters for finish coats.

Plasters for Base Coats—These plasters are made in four classes, each for a particular use, as follows: (1) Cement Plasters, unsanded (hair fibred or unfibred); (2) sanded plasters; (3) wood fibred plasters; (4) plasters for concrete surfaces.

Plasters for Finish Coats—These are made in four classes, each for a particular use, as follows: (1) Prepared finishing plasters; (2) gauging plasters; (3) moulding and casting plasters; (4) Keene's cement plaster.

Materials—All Beaver American and Southern American gypsum plasters have, for their cementitious base, carefully selected gypsum rock, scientifically ground and calcined. To this cementitious base, where required, other materials such as retarder, wood fiber and hair are added to control the set, produce perfect working qualities and permit proper bond to the surfaces to be plastered.



All sand in sanded plasters is carefully selected, clean sharp siliceous sand, free from salt, clay, loam or other impurities.

Advantages

Gypsum Plasters have many advantages: Adhere to all material used as backing for plaster, gypsum blocks, plaster board, stone, brick, hollow tile, concrete, wood or metal lath; highly adhesive; do not crumble; work smoothly and easily under the trowel; set slowly, giving the plasterer ample time for troweling.

Gypsum plasters harden and dry quickly, permitting carpentry and other work to proceed almost immediately after plastering is finished.

The finished wall is a non-conductor of heat and cold; resist fire; is verminproof.

Can be painted, frescoed, papered, or finished with any kind of decorative material a few days after its application.

Brands

Southern American Gypsum plasters are marketed under the various brands listed as follows:

| | | |
|-----------|----------|----------------|
| Stonewall | Cherokee | Kings Mountain |
| Boone | | White Top |

Beaver American gypsum plasters are marketed under the various brands listed below; all brands being of the same high standard of quality.

| | | |
|--------------|---------------|----------|
| American | Fishack | Peerless |
| Crystal Rock | Great Western | Akron |
| White Rock | Agatite | Eagle |

Beaver Gypsum Lath

Beaver Gypsum Lath is the ideal plaster base. Manufactured $\frac{1}{4}$ " thick, in sizes 24" x 32"; 32" x 36"; and 32" x 48", $\frac{1}{2}$ " thick in same sizes as $\frac{1}{4}$ "; and $\frac{3}{8}$ " thick in sizes 16" x 32"; 16" x 48"; 24" x 32"; 32" x 36" and 32" x 48". It is made of gypsum rock plaster reinforced with shredded wood fibre and by tough fibre facings front and back. It is applied much faster than other forms of lath; braces the framing better; bonds with gypsum plaster more securely; saves time and material in plastering; and will not swell, buckle, rust or burn. The finished wall has twice the thickness of durable rock-like material usually secured with other forms of lathing.



For further details and literature, write to:

THE BEAVER PRODUCTS COMPANY, Inc., Buffalo, N. Y.

EBSARY GYPSUM COMPANY, Inc.

General Sales Offices, 103 Park Avenue, New York, N. Y.

Boston

Newark

SALES OFFICES
Philadelphia

Washington

Jersey City

Products

EBSARY GYPSUM CEMENT PLASTER.
EBSARY GYPSUM WOOD FIBRED PLASTER.
EBSARY GYPSUM SANDED PLASTER.
EBSARY GYPSUM CONCRETE PLASTER.
EBSARY GYPSUM PARTITION BLOCK.
EBSARY GYPSUM ROOF BLOCK.

Ebsary Gypsum Plaster

Gypsum Plaster is shipped in 100-lb. jute bags and 80-lb. paper bags. Careful attention is given to the manufacture of this plaster so that it will work perfectly under varying climatic conditions, and each individual market is supplied with a plaster that will work best under the particular conditions prevailing.

CEMENT PLASTER—Is prepared for use in the larger cities and where the sand conditions are good. This is the material that is distinguished by the well-known Ebsary Blue Tag and is well and favorably known throughout the East.

WOOD FIBRED PLASTER—Is intended for those sections of the country where the sand obtainable is not of as good quality as would be required for use with Cement Plaster, and also where a particularly smooth and easy working plaster is desired.

SANDED PLASTER—Is a prepared plaster requiring only the addition of water when it is used and it is used where sand is not obtainable locally, and also it is a fine material to use where skilled labor can not be secured.

CONCRETE PLASTER—Is especially prepared to be used directly upon smooth concrete walls and ceilings and requires only the addition of water when being mixed.

When you use Ebsary Cement Plaster you will get a dependable uniform plaster, made from the purest of gypsum rock—every mix is laboratory tested. When applied, Ebsary Plaster sets or hardens in from three to six hours. Gypsum will not expand or contract so there is no shrinkage as in lime and the cost is no greater than three coat lime mortar.

Ebsary Gypsum Blocks

Lowest in cost of all fireproof partitions. Saves from 10 per cent to 20 per cent in plaster. Best for sound proofing purposes.

*English Garden Homes are attractively grouped
in Van Nostrand Court, Little Neck, L.I.*



Part of a group of twenty-nine houses constructed by McBride Ogden Construction Corporation.
Ebsary Cement Plaster Used.



For further details and
literature, write to:

EBSARY GYPSUM COMPANY, INC.,

103 Park Avenue,
New York, N. Y.

GRAND RAPIDS PLASTER CO.

Grand Rapids, Mich.

WALL PLASTER & FINISHES



Plaster Lath, Wall Board and Other Gypsum Products

PRODUCTS:

Neat Cement Plasters
Wood Fiber Wall Plaster
Finishing Plasters
Gypsum Sanded Plaster
Gypsum Plaster for Concrete Surfaces
Climax Gypsum Lath
Climax Gypsum Plaster Board

BRANDS:

Gypsum Wall Plasters (Neat)
Hercules "A" Blue Rock "A"
Gypsum "A" Elephant "A"
Crystal "A"

Gypsum Wood Fibered Plasters

Climax Wood Mortar
Crystal Wood Fiber Plaster
Superior Wood Fiber Plaster
Blue Rock Wood Fiber Plaster
Elephant Wood Fiber Plaster

Gauging or Finishing Plasters

Hovey's Eagle Calcined Plaster
Acorn Calcined Plaster
Green "A" Calcined Plaster

Prepared Finishing Plasters

Eagle Trowel Finish
Superior Trowel Finish

PACKAGES:

All brands of Gypsum Plaster are packed in 80 lb. paper sacks or 100 lb. jute bags.

DISTRIBUTION:

These products are sold and distributed through Building Supply dealers in all principal cities and in many of the smaller towns.

DESCRIPTION:

Our Gypsum Wall Plasters "A" brands do not contain sand. Sand should be added at the job in the ratio of two parts clean sand to one part plaster.

Our Wood Fiber Plasters are ready for use after addition of water only, and are used principally where good sand is not available. However, there is no better plaster obtainable than our Wood Fiber Plasters.

Our Prepared Finish Plasters are used after the admixture of water only. They contain no lime and will not burn or blister the hands.

Gauging Plasters are mixed with lime putty for white-coating.

These plasters cut the lime well and our brands have been standard for more than fifty years.

COVERING CAPACITY:

"A" grade Gypsum Wall Plasters, (after addition of sand) approximate 200 to 250 yards per ton.

Wood Fiber Plasters, approximate 100 to 125 yards per ton.

Prepared Finishes, approximate 350 to 450 yards per ton.



For further details and literature, write to:

GRAND RAPIDS PLASTER CO., Grand Rapids, Mich.

NATIONAL GOLD BOND PLASTER

Manufactured by the
NATIONAL GYPSUM COMPANY

Jackson Bldg., Buffalo, N. Y.

Conway Bldg., Chicago, Ill.

For Other Products See Page 108

Purity of National Gold Bond Plaster

"The higher the gypsum content, the stronger the resulting plaster," says the United States Bureau of Standards.

National Gold Bond Plaster is made from the purest gypsum rock. The official tests show the New York rock assays up to 98.16 per cent pure—the highest grade mined in the East. The tests of rock from the Michigan deposit show purity up to 99.76 per cent—less than $\frac{1}{4}$ of 1 per cent foreign matter. Government and State analyses of other well-known deposits of gypsum range from 70.8 to 93.74 per cent.

A Rich Mix

As a result of its extreme purity, National Gold Bond is exceptionally rich in the mix and carries a high amount of sand.

It works exceptionally well under the trowel and gives maximum strength in the finished job.

Guarantee of Quality and Uniformity

To emphasize the high quality of this product, it is sold under a "Gold Bond Guarantee" which is printed on the back of each bag and reads as follows:

"This National Gold Bond Guarantees that the National Gypsum deposits embrace millions of tons which assay as high as 99.76 per cent in purity; that the National Plaster in this container, like our other

gypsum products, has been carefully tested at the mill; that National Plaster exceeds on all points the Standards of American Society for Testing Materials and that, properly used, it will give the best results obtainable."

Quantity Available

The New York deposits of this company cover 1,000 acres and contain 10,000,000 tons of gypsum. The Michigan deposits cover over 1,000 acres and contain 30,000,000 tons of gypsum. Although the plants erected on each property are among the largest of their kind, there is enough high-grade gypsum to last over 100 years.

Specifications

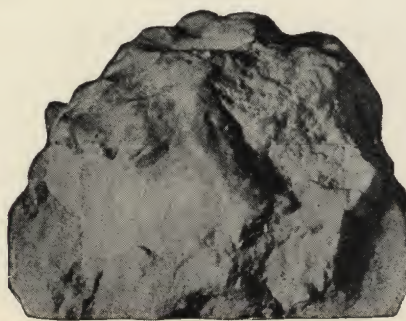
National Gold Bond Plaster is specified and applied in the same manner as is required for good work under the standard specification.

Packing

Shipped in convenient packages. Jute sacks, which are returnable, contain 100 lbs. each. Paper sacks, which are non-returnable, contain 80 lbs.

Products

NATIONAL GOLD BOND PLASTER: Hair Fibered, Unfibered, Wood Fibered, Moulding, Finishing; PLASTERS for concrete surfaces. Also Best Bros.' Keene's Cement.



For further details and
literature, write to:

NATIONAL GYPSUM COMPANY

Jackson Bldg.
BUFFALO, N. Y.

OHIO WHITE FINISHING LIME

Manufactured by
THE OHIO HYDRATE & SUPPLY CO.
Woodville, Ohio

"The Lime Center of the World"

Products

"OHIO" White Finish; "WOODVILLE" White Finish; "BUCKEYE" White Finish; "HAWK SPREAD" White Finish—all of which are Hydrated Finishing Limes of equal quality.

Ohio Masons Hydrated Lime.

Also Lump Lime and Crushed Limestone.

Facilities and Organization

The Ohio Hydrate & Supply Co. was organized in 1916 and now has an annual plant capacity of over 150,000 tons of finishing product.

Plant and quarries are located on the main line of the Pennsylvania Railroad.

Our products are sold by over 6500 retail building supply dealers conveniently located throughout the United States and Canada.

Guarantees

All Ohio Hydrate products are guaranteed to meet the standard specifications of the American Society for Testing Materials and also the rigid requirements of the Finishing Lime Manufacturers Association of Ohio of which we are members.

To make identification easy, our four brands of finishing lime—all of equal quality—are packed in 50-lb. rope paper valve bags *distinctively marked at top, bottom and sides with Red Zig Zags*.

Characteristics of "OHIO" Lime

Because of its extreme purity, whiteness, plasticity, quick soaking and easy spreading qualities there is nothing any better for finish coat plaster work than Ohio White Finishing Lime and because this is true it automatically lends itself to any building need where lime can be used to advantage, such as masonry mortar, stucco and in concrete as a lubricant and waterproofing agent.

Purity

Ohio White Finishing Lime is made from lime rock coming from the heart of the largest known and purest deposit of dolomitic limestone in America. It is made at our Woodville plant under large scale manufacturing processes conducted with laboratory accuracy. It more than meets A. S. T. M. requirements.

Plasticity

The Bureau of Standards and American Society for Testing Materials specifications call for a plasticity figure of 200 for Finishing Hydrated Lime. Our product, Ohio White Finishing Lime, tests from 225 to 285 with an average of 255. "Plasticity" simply means workability—that quality which the plasterer calls "fatness." It enables him to do better work with less effort—to cover greater yardage, ton for ton, than with any other plastic product.

Color

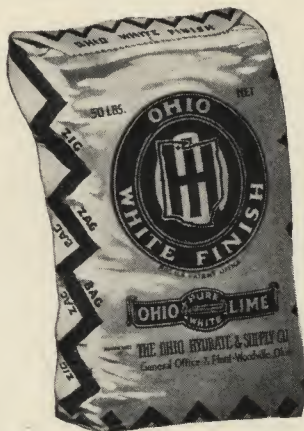
The product of our mills, Ohio White Finishing Lime, is of pure alabaster whiteness, uniform in quality and velvety in texture.

Acoustics

Walls and ceilings properly plastered with Ohio White Finishing Lime absorb sound waves—eliminate the echo. This is due to the fact that plaster made from Ohio White Finishing Lime is of cellular construction. The microscope reveals millions of tiny pores, each sealed from its neighbor. These cells absorb sound.



Trade Marks



All four brands illustrated above are packed in readily distinguishable **Red Zig Zag Bags**—your guarantee that the contents are the **original** Ohio White Finish coming straight from the heart of the lime center of the world.

Use for Plastering

Our four brands of Ohio White Finishing Lime, "OHIO," "WOODVILLE," "BUCKEYE" and "HAWK SPREAD" are ideally adapted for scratch, brown and finish coat plastering.

Complete and detailed specifications covering the use of our limes for all kinds of plaster work are contained in our new book "Finishing Lime." Definite information about this interesting book will be found at the bottom of this column.

Use for Masonry Mortar

Ohio Masons Hydrated Lime is ideally adapted for masonry mortar—brick, terra cotta tile, cinder block and tile, concrete brick, block and tile and other masonry units.

Complete and detailed specifications for its use will be found in the book "Finishing Lime" referred to above.

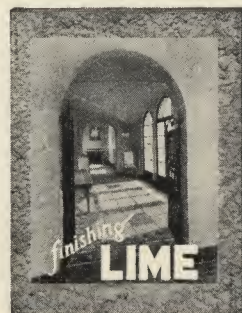
Use for Stucco

The use of lime for stucco probably dates back as early as 3500 B. C. Modern examples of lime and lime-cement stucco as we know it today are dotted all over the United States. However, it should be remembered that success with lime or lime-cement stucco, as with any other kind, depends on the permanence, rigidity, and keying or bonding ability of the base to which it is applied.

Complete and detailed specifications covering proportions, mixing and application of lime and lime-cement stucco will be found in our new book "Finishing Lime."

Use in Concrete

The use of any one of our four brands of finishing lime in concrete mixtures is simply good waterproofing insurance. The many advantages to be gained by the use of lime in concrete, together with complete and detailed specifications covering proportions, etc., will be found in our book "Finishing Lime."



Send for This Book

Our new book "Finishing Lime" is packed from cover to cover with *facts* about finishing lime and its various uses. Interesting and richly illustrated, it contains complete and detailed specifications covering every use of lime in building construction. *It is free and will be cheerfully sent to all who are interested enough to ask for it.*



For further details and literature, write to:

THE OHIO HYDRATE & SUPPLY CO., Woodville, Ohio

BEAVER INSULATING BOARD

INSULATION — WALLBOARD — SHEATHING



Manufactured by
THE BEAVER PRODUCTS COMPANY, Inc.
 Thorold, Ont. BUFFALO, N. Y. London, Eng.



SALES OFFICES:

Atlanta, Ga.
1303 Candler Bldg.

Kansas City, Mo.
12th St. and Crystal Ave.

Chicago, Ill.
2246 W. 49th St.

New York, N. Y.
110 E. 42nd St.

Minneapolis, Minn.
415 Lumber Exchange

For Other Products See Pages:

Plaster Wall Board (107)

Fibre Wall Board (106)

Roofings (130)

Plasters (81)

Scientifically Perfected Insulation

Beaver Insulating Board is an improved type of insulation, the result of years of experience and laboratory research in developing a material combining maximum heat, cold and sound resisting properties with greater structural strength. It is made by the world's pioneer manufacturer of wall board—the logical source of improvement in fibre insulation.

It is a fibrous material combining Insulation, Wall Board and Sheathing in the most practical and convenient form, big, clean structural panels 4 feet wide and 6 to 12 feet long. It nails and saws like lumber and is quickly and easily applied anywhere. Little cutting and fitting is necessary, for the large, convenient sized panels cover many square feet in one operation.

Improved Insulation: Dead air is the best insulator known to science. The special fibrous composition and laminated construction of Beaver Insulating Board retain more millions of dead air cells to the square foot than any other process. It also prevents loss of heat through the infiltration of air common to boards of homogeneous type.

Improved Strength and Rigidity: Because of its laminated construction, Beaver Insulating Board provides board-like rigidity and a degree of structural strength never before equalled in any insulating board. It is truly a building material in itself.

Improved Nailing: The greater density of the board and the superior toughness of the materials of which it is composed offer better nailing qualities. Once properly nailed in place, it is there to stay.

Improved Surface: Beaver Insulating Board has a fine, smooth texture that lends itself readily to the most simple or elaborate wall treatment. It also offers important economy when used as an interior finish because its comparative resistance to paint absorption is nearly three times greater than that of any other similar material.

For Old Homes or New Insulation at No Extra Cost

Buildings insulated with Beaver Insulating Board are warmer in winter. Heat does not filter out; cold winds do not drive through. The heating plant gives much better results and consumes less fuel. The greatly reduced coal bill is positive evidence of this. What is most important,

the fuel saving invariably pays for the cost of applying Beaver Insulation within a very few seasons. Likewise, in Summer Beaver Insulated Walls, ceilings and roofs keep out the sun's heat. The house is more comfortable day and night.

As Sheathing: Beaver Insulating Board takes the place of other materials costing as much or more, and supplies the needed insulation back of wood, brick, stone or stucco exteriors. At the same time, it braces the frame work more rigidly, making for more permanent and trouble free construction.

Plaster Base: Beaver Insulating Board bonds perfectly with gypsum plaster and when applied and plastered according to the manufacturer's specifications, gives assurance of permanently beautiful walls and ceilings. When so used, in conjunction with its use as sheathing, it provides double insulation.

Roof Insulation: Uninsulated roofs are the greatest cause of heat loss in winter, and the greatest source of discomfort in summer. Therefore, it is possible for owners of old houses to secure most of insulation's advantages by simply lining the attic with Beaver Insulating Board. At the same time the attic is turned into a comfortable, attractive, liveable room, or rooms. In new homes, Beaver Insulating

Board may be applied either above or below the rafters.

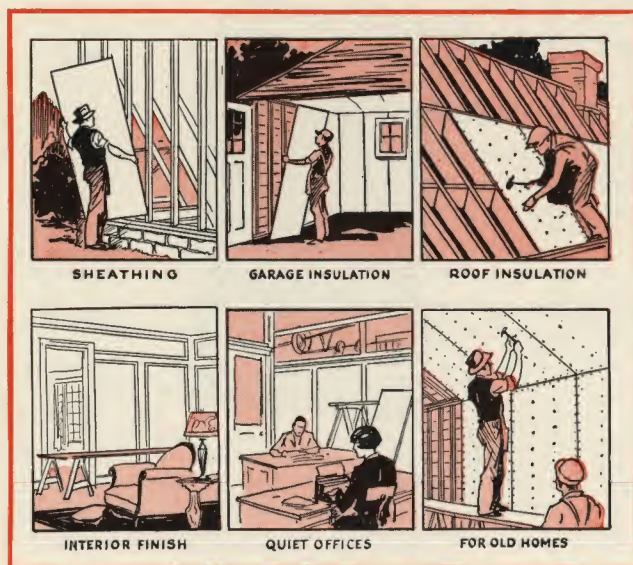
Interior Finish: In old homes, also, Beaver Insulating Board may be nailed right over old cracked walls and ceilings. When artistically panelled and decorated with paint, stain or stencils, the decorative effect is all that could be desired.

Many Other Good Uses

Garage Insulation: Cars lodged in Beaver Insulated garages are more easily started in winter and are proof against damage from frozen radiators and motor blocks.

Sound Deadening: Beaver Insulating Board is just as effective a barrier to sound as it is to heat and cold. Because it also has all the qualities of the ideal wall board, it is being used extensively for such uses as partitioning off offices where workers can be free from annoyances; for building temporary or permanent partitions in offices, stores, factories and so on.

There really seems to be no end to the practical uses being discovered every day for Beaver Insulating Board. Consider its many advantages and you will doubtless find some way in which it can serve you with perfect satisfaction.



**BEAVER
 INSULATING
 BOARD**



For further details and literature, write to:

THE BEAVER PRODUCTS COMPANY, Inc., Buffalo, N. Y.

CELOTEX INSULATING LUMBER

General Uses and Specifications

Manufactured by

THE CELOTEX COMPANY

645 N. Michigan Ave., Chicago, Ill.

Mills: New Orleans, La.

Branch Sales Offices in many principal cities

(See Telephone Books for Addresses)

All Reliable Lumber Dealers Can Supply

Celotex

SCIENCE has discovered that the usual building materials (wood, brick, plaster, wall and plaster boards, shingles, roofing materials, etc.) when used alone, offer too little resistance to the passage of heat and cold. Careful experiments show that there is an avoidable heat loss of from 25% to 35% right through the walls and roofs of homes built with these materials alone.

Solid construction is not enough. A special heat-stopping or insulating material is needed. Now, this protection is available for every home, old or new.

Celotex Insulating Lumber effectively resists the passage of heat and cold. It shuts out wind and dampness, quiets noise. Because Celotex replaces other materials in building (see illustration) it is not an extra item, and hence, not a heavy extra expense. Walls sheathed with Celotex are stronger than those as ordinarily sheathed with wood lumber and Celotex is many times more effective in stopping heat and cold. More than 217,000 new homes have been built with Celotex. These homes are warmer in winter, cooler in summer, stronger and quieter. With Celotex in the walls, ceilings and roof of a house, a smaller, less-expensive heating plant and smaller radiators will keep you comfortable.

Celotex Standard Building Board

Description: Thickness $\frac{7}{8}$ -inch, average weight 60 lbs. per hundred square feet; width, 4 ft.; lengths, 7, 8, $8\frac{1}{2}$, 9, $9\frac{1}{2}$, 10 and 12 ft. Celotex is a sterilized and waterproofed cane fibre board with heat insulating value of 0.33 B.T.U. per hour, per square foot, per degree Fahrenheit, per inch in thickness. Celotex has a higher sound insulation value than standard deadening felts.

Principal Uses

(1) As sheathing—replacing wood lumber and building paper. (For specifications refer to page entitled: "Celotex as Sheathing," see index under "Sheathing.")

(2) As interior finish—plain or decorated. (For specifications refer to page entitled: "Attractive Interiors with Celotex," see index under "Wall Boards.")

(3) and (4) Attic lining and roof insulation. (For specifications refer to page entitled: "Insulating Roofs and Attics with Celotex," see index under "Insulation.")

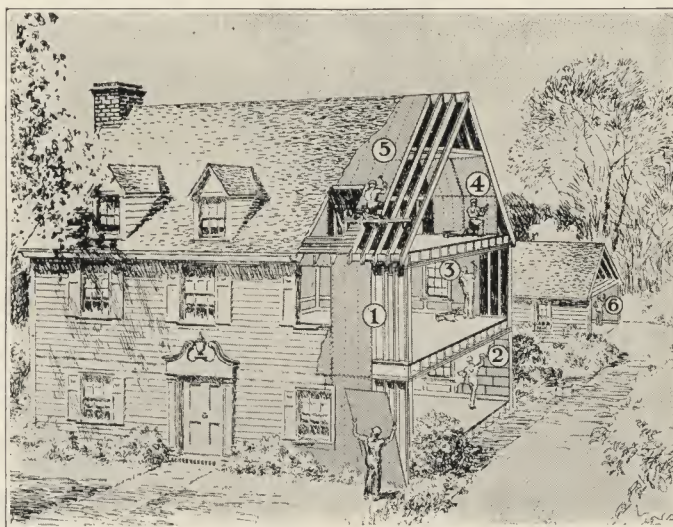
(5) As garage lining. (Specifications are the same as those for interior finish. Refer to page entitled: "Attractive Interiors with Celotex." See index under "Wall Boards.")

(6) For information about Celotex as plaster base see page on Celotex Lath.

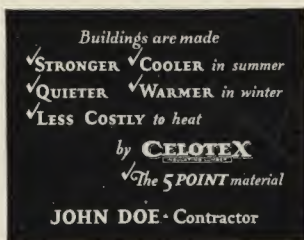
Standard Application

Framing: Sills, studs, plates, joists and rafters shall be framed as in ordinary frame construction, spacing the studs, joists and rafters accurately on 16-inch centers. Wherever it is necessary to have a horizontal joint in the Celotex, a 2" x 4" header shall be cut in between the framing. No bracing is necessary other than that commonly used or required in frame construction. Where Celotex is used under plaster on ceilings a 2" x 4" header shall be cut in every 4 feet for nailing.

Moistening Celotex Before Applying: Moisten lightly and



HOW CELOTEX IS USED—1. As sheathing, replacing wood lumber and building paper. 2. CELOTEX LATH, replacing other forms of lath. 3. As interior finish. 4. As attic lining. 5. As roof insulation. 6. As garage lining.



The Sign of a Well Built House
This Celotex sign is becoming known to millions through a tremendous national advertising campaign, and by its use everywhere to identify houses that are well built.

CELOTEX

INSULATING LUMBER

pile Celotex boards not less than one day before nailing. This should be done by sprinkling lightly with a hose, sprinkling can, or broom dipped into a pail of water while the boards are being unloaded and piled. To prevent freezing, sprinkle indoors in cold weather. Nail to framing within two hours after removing from pile.

Application of Celotex: The Celotex boards shall be applied lengthwise and directly to studs, joists, furring and rafters with ample bearing for nailing along all edges.

Leave $\frac{1}{8}$ -inch space between adjoining boards, also at top and bottom of boards. The board is cut scant in width and length to allow for this space.

Around window and door frames or where a snug joint is desired, the Celotex shall

be brought to close contact with the frames. Do not force into place. Note the extra back of frames as shown on strip of Celotex nailed to the wall section details, opposite page 000, to prevent leakage of hot or cold air.

Where rafters project beyond face of studding, Celotex shall be cut to fit snugly between rafters and to form a close joint between wall and roof insulation.

Nailing of Celotex: Beginning at the top, nail the Celotex first to intermediate studs. Then nail entirely around all edges of each board, placing the nails $\frac{3}{8}$ " away from the edge. Nail in similar manner to joists, furring, rafters, sills, plates and headers. Use standard $1\frac{1}{2}$ " galvanized roofing nails with $\frac{3}{8}$ " heads. Space nails 3" apart along edges and 6" apart along intermediate frame members, driving nails until the heads are slightly below the surface of the Celotex.

Where Celotex is used as interior finish and the joints are not covered, finishing nails $1\frac{1}{4}$ " long shall be used, spaced 3" apart and driven at an angle.

Where Celotex is applied to 1" wood strips on masonry walls, use $1\frac{1}{4}$ " galvanized roofing nails with $\frac{3}{8}$ " heads.

Insulating and Deadening Floors with Celotex

For insulating floors over basements and for partial floor deadening lay a continuous layer of Celotex between the rough and finish floors with edges of the Celotex boards in moderate contact. Nail the Celotex sufficiently to hold in place while the finish floor is being laid. Nail the finish floor through Celotex to the sub-floor.

For floors without basements, the Celotex may be applied either after being painted on the underside or by laying a good quality water-proofed building paper over the sub-floor and then applying Celotex, as provided in the preceding paragraph.

When the sub-floor is omitted, nail Celotex over joists in accordance with paragraph above entitled: "Application of Celotex," and immediately lay the finish floor, as Celotex does not provide a working platform. Nail the finish floor through the Celotex to joists.

For specifications for special sound insulation of walls and floors, communicate with The Celotex Company, 645 North Michigan Avenue, Chicago, Ill.

For Other Celotex Products see pages as follows: Interior Finish, 437; Sheathing, 110; Plaster Base, 72.

For further details and literature write to:

THE CELOTEX COMPANY

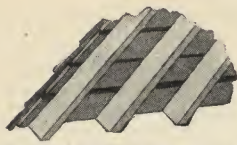
645 N. Michigan Avenue, Chicago, Illinois

HOME BUILDERS CATALOG

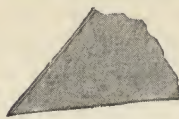
See Next Page

INSULATING ROOFS AND ATTICS

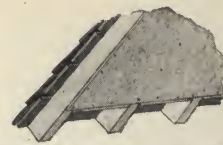
With Celotex Insulating Lumber



This roof is solidly built, but it leaks heat and cold. None of the usual roof materials, when used alone, effectively keep in furnace heat in winter or shut out sun heat in summer.



This layer of Celotex Insulating Lumber shuts out heat and cold more effectively than all of the materials combined in the roof at the left.



Lining your attic with Celotex more than doubles the protection offered by a roof of usual construction. It will make your home more comfortable all year around and save money.

Most heat leaks out of houses through roofs in winter—causing high fuel losses. Most heat beats into houses through roofs in summer, causing hot attics and uncomfortable upstairs rooms. Celotex applied either over or under roof rafters gives needed protection. And in houses already built, lining the attic with Celotex provides greater comfort all year round . . . adds an attractive room . . . saves in fuel money many times its small cost.

Material

Roof and attic insulation should be Celotex Standard Building Board. If the entrance to the attic is not large enough to permit use of Standard Building Board, Celotex Lath should be used.

Applying Celotex

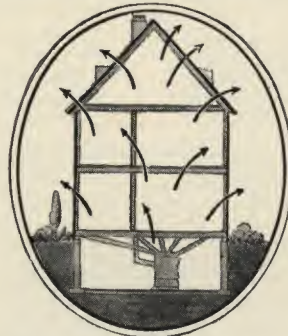
Celotex shall be moistened and applied to framing in accordance with specifications described on preceding pages. Apply Celotex to continuous wood surfaces such as flooring or roof sheathing by laying the edges in moderate contact and nailing with large-headed 1 1/4" galvanized roofing nails. The place of application and the number of thicknesses shall be as directed by the architect or owner. Where more than one layer of Celotex is used, each layer shall break joints with the preceding one and the nails used shall be long enough to secure the Celotex firmly to the underlying wood.

Over Roof Rafters. When the Celotex is to be covered with rigid roofing, such as wood shingles, slate or tile, it shall be nailed directly to the rafters and 1" x 2" furring strips shall be nailed horizontally over it, driving the nails into the rafters. Furring strips shall be spaced to fit the particular roofing specified.

When the roof is to be covered with roll or sheet roofing or flexible shingles, apply wood sheathing either over or under the Celotex. In all cases the roofing nails must be long enough to penetrate the wood sheathing.

In roofs of summer cottages where Celotex is used as interior finish in connection with open rafters, the Celotex shall be applied directly over the top of the rafters.

Under Roof Rafters. When nailing Celotex to the under side of roof rafters, extend it to a tight joint with the insulation on all sides. In houses already built,



25% to 35% of your furnace heat is needlessly wasted, right through walls and roofs

where there is no side wall insulation, bring the Celotex to close contact with the side wall sheathing or climate, and carefully close all spaces along the eaves where hot or cold air leakage may occur. If framing is not spaced properly, it shall be furred with 1" or 2" furring strips spaced 16" on centers.

If attic is to be used as a bed room or other living room, and it is to be plastered, follow specifications entitled: "Celotex Lath—as a Base to Receive Plaster." See index under "Plaster Base."

If Celotex is to be used for interior finish and decorated, follow specifications entitled: "Attractive Interiors with Celotex." See index under "Wall Boards."

Over Attic Joists. Apply Celotex directly to attic floor joists, extending to a tight joint with side wall insulation. In old houses where there is no side wall insulation, the Celotex shall be carefully fitted to the side wall sheathing or plate to prevent leakage of cold or hot air. If eaves are not tight the joist space between the Celotex and the ceiling below shall be blocked off at the ends to prevent air leakage into this space. Lay wood floor over the Celotex in portions of the attic to be used for storage or living room purposes, nailing through to joists.

Over Attic Floors. If attic is already covered with flooring, apply Celotex to the floor as specified at the head of this section. Wood flooring, linoleum, carpet, or canvas may be placed over the Celotex if desired.

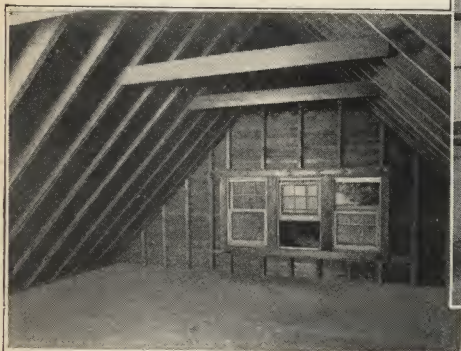
Over Flat Wood Decks. The roof decks shall be constructed in the usual manner to the required slopes and swept clean before laying Celotex insulation. The cant strips, if required, shall be installed after the Celotex is in place.

Apply the Celotex over this deck and nail as specified at the head of this section.

At all parapet walls and other roof projections the Celotex shall be cut and properly fitted and shall not be forced into place at any point.

Tin and other forms of roofing shall be applied in accordance with the Manufacturer's Specifications.

NOTE: Over wood, metal, or concrete decks, for commercial or industrial buildings or for roofs of large area, and for situations where a problem of condensation is to be considered with, see specifications covering "Celotex Roof Insulation Board." Celotex Roof Insulation Board may be used on any flat decks specified herein, in place of Celotex Standard Building Board.



Because furnace heated air naturally rises, more than 60% of the avoidable heat-leakage in an uninsulated house occurs through the roof. This picture shows an attic room before Celotex has been applied.



Celotex supplies insulation where it is most needed. Costs very little and saves fuel. Celotex is used either over or under roof rafters.



Celotex will make your home winter-warm and summer-cool. It will save in fuel much more than it costs. This picture shows the same attic room after Celotex has been applied and decorated.

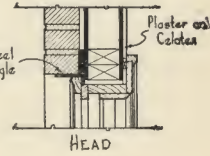
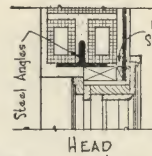
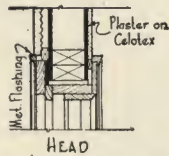
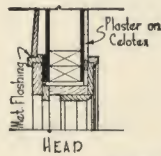
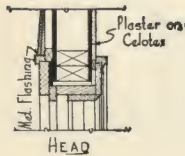
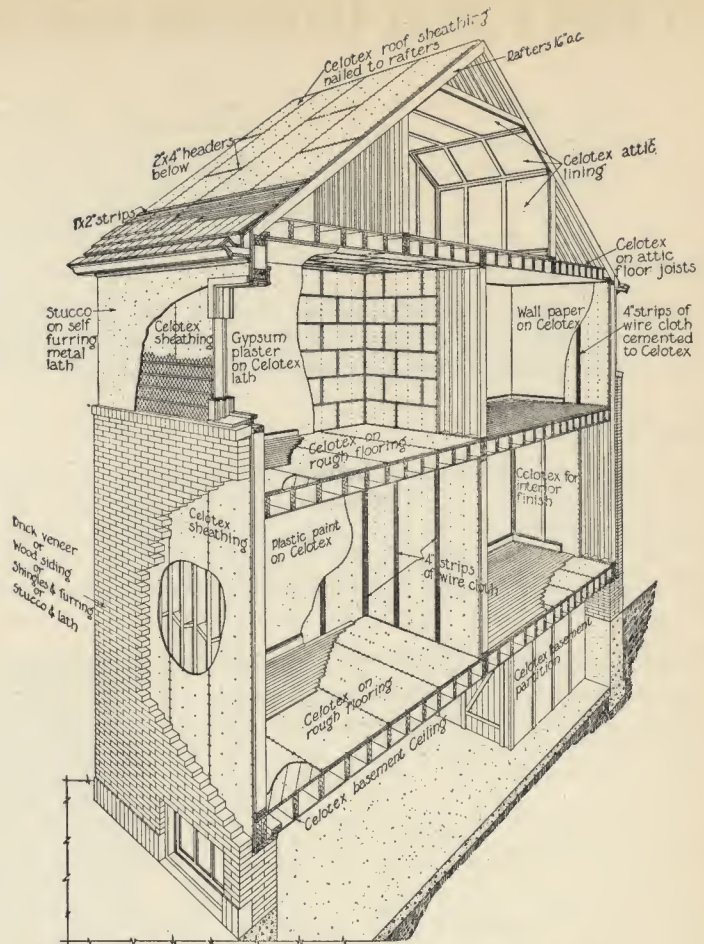
For further details and literature write to:

THE CELOTEX COMPANY

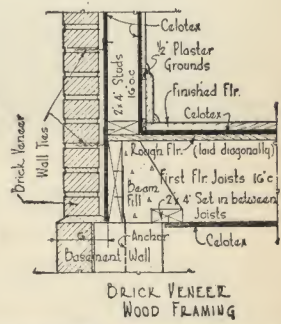
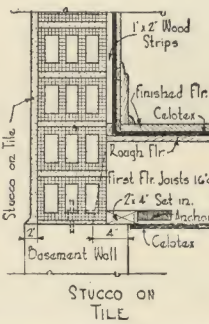
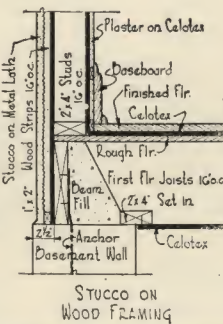
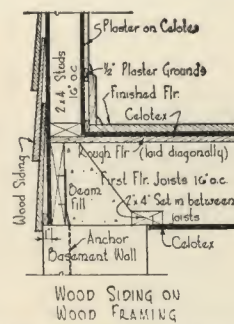
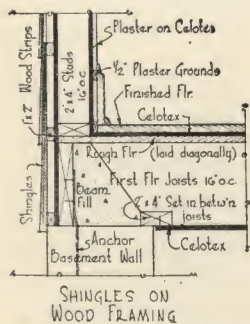
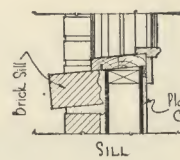
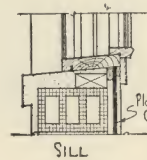
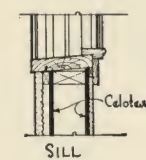
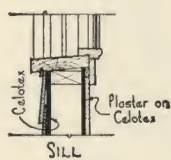
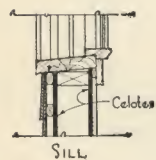
645 N. Michigan Avenue, Chicago, Illinois

HOME BUILDERS CATALOG

Section
of
Building Showing
Typical Uses of Celotex
and Celotex Lath



(Celotex construction on side jambs similar)



THE
CELOTEX
COMPANY

DETAILS SHOWING APPLICATION OF CELOTEX
TO SEVERAL TYPES OF CONSTRUCTION

SHEET NO. 1
NOT TO
SCALE

For further details and literature write to:

THE CELOTEX COMPANY

645 N. Michigan Avenue, Chicago, Illinois

HOME BUILDERS CATALOG

Cabot's Heat-Insulating and Sound-Deadening "Quilt"

NEW YORK
101 Park Ave.

Samuel Cabot
Incorporated
BOSTON, 141 Milk St.

Real Estate Trust Bldg., Philadelphia; 2035 E. 19th St., Kansas City;
Builders' Exchange, Minneapolis; Hibernian Bldg., Los Angeles;
444 Market St., San Francisco; 96 Front St., Portland, Ore.
Agents all over the Country.

CHICAGO
5000 Bloomingdale Ave.

Other Products

Cabot's Creosote Shingle Stains, Stained Shingles, Water-proof Collopakes, Old Virginia White, Double-White, Mortar Colors, Waterproofings, Wood Preservatives, etc. See Page 112.

Cabot's "Quilt"

Purposes: For Heat-Insulation in roofs and walls of houses, in roofs of factories, mercantile buildings and hotels, in walls, ceilings and partitions of cold storage warehouses and refrigerators, etc. For Sound-deadening in floors and partitions of apartments, hotels, schools, musical studios, offices, gymnasiums, etc.

Heat-Insulation: "Quilt" is a flexible, resilient cushion of "dead" air-spaces. Dead air—which cannot circulate and conduct heat—is the best insulator known. One layer of double-ply "Quilt" holds heat better than 40 layers of common building paper, or 3" of board or 12" of brickwork.

U. S. Government Bureau of Standards Tests [Letter Circular 227] prove that Cabot's Quilt is equalled by only two other insulators, both much more costly.

Sound-Deadening: "Quilt" breaks up and absorbs sound-waves. Can be applied in any kind of floor, ceiling or partition—frame, metal or plaster block. Over thirty years of successful deadening.

Flexible: "Quilt" is flexible and will fit any surface, turn any corners or cover any jogs or projections.

Fire-Resistant: Will not burn. Makes an efficient fire-protection in walls or floors.

Decay-Proof, Permanent: Will not rot or get foul. Repels insects and vermin. Cannot swell or warp or cause plaster cracks.



Catalogs on Heat-Insulation and Sound-Deadening, giving full detailed drawings and specifications, sent free on request.

Narrow Stitching for dividing Roll into two 18" widths, to lay between studs.

Quilt is sold in rolls of 250 square feet each. It is one yard wide, very strong and entirely flexible, fitting into or around any jogs or projections. It is made of cured eel-grass, stitched in three-inch widths between kraft paper.

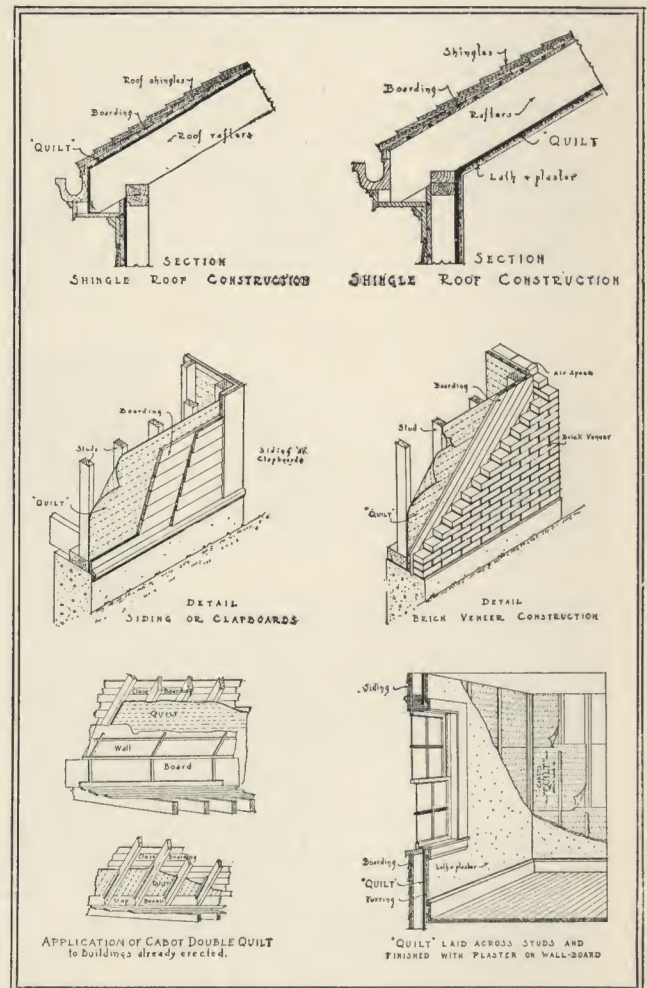
Eel-grass (1) will not rot; (2) will not burn; (3) will not harbor insects or vermin. It has a flat, crinkly fibre that forms an elastic cushion of dead-air spaces. "Dead" air is the most efficient non-conductor of heat.



Old Pierce House, Dorchester, Mass.
Built about 1635

The walls of this house were stuffed with eel-grass when the house was built, about 1635, and the grass is still in a perfect state of preservation. We have a sample of this 290-year-old eel-grass in our office, and this rot-proof grass which grows in the ocean is the material used in making Cabot's Quilt.

The Babcock House, Milton, Mass., built 1723, and other old houses in Connecticut, Nova Scotia, etc., are insulated in the same way.



For further details and literature, write to:

SAMUEL CABOT, Inc., Boston, Mass.

THERMOFILL

The Dry Fill Insulation



Manufactured by the
UNITED STATES GYPSUM COMPANY

300 West Adams St., Chicago, Illinois



BRANCH OFFICES

New York, N. Y., 17 State St.
Buffalo, N. Y., Ellicott Square Bldg.
Boston, Mass., 100 Bolyston St.
Washington, D. C., 604 Lenox Bldg.
Baltimore, Md., 402 Keyser Bldg.
Philadelphia, Pa., Foot of 58th St.

Atlanta, Ga., 1130 Candler Bldg.
Pittsburgh, Pa., 917 Bessemer Bldg.
Cleveland, Ohio, 942 Hanna Bldg.
Cincinnati, Ohio, 806 Atlas Bank Bldg.
Detroit, Mich., 1418 Penobscot Bldg.
Milwaukee, Wis., Grove and Oregon Sts.

Minneapolis, Minn., 402 Thorpe Bldg.
St. Louis, Mo., 1204 Syndicate Trust Bldg.
Kansas City, Mo., 444 Lathrop Bldg.
Omaha, Neb., 1407 W. O. W. Bldg.
Denver, Colo., 603 Denham Bldg.
Los Angeles, Cal., 530 W. Sixth St.

For Other Products see pages as follows: 66, 73, 109, 111.

Thermofill

Thermofill is unlike any other insulator. Not a board or panel—it is a flaky material made of fireproof gypsum, packed in clean, easy - to - handle, 50 - pound paper bags. Poured dry into place it provides a bulky, thick insulation.

Why Efficient

The nature of Thermofill permits its installation to an effective thickness. When installed 85% of the space is "dead" air cells confined in a material that will not itself readily transmit heat.

Fireproof and Decayproof

Thermofill does not burn or transmit fire. Thermofill does not deteriorate with age, and does not harbor vermin.

Where to Use

As sixty per cent of the heat loss in the average house is through the upstairs ceilings, that is the place where insulation will give the greatest return for the money invested.

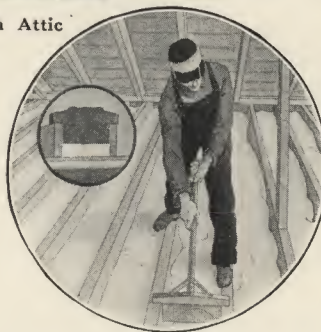
Easy to Install

Thermofill is easy to apply in the attics of either old or new houses. It is installed

simply by pouring (dry) right from the 50-pound paper bags into the space between the floor joists in the attic, directly upon the ceilings of the upstairs rooms. The material is then leveled to a thickness of about three inches and the job is completed. (Uniform thickness can be secured by notching a board on two ends so that it can be run along the top of the joists leaving the desired clearance at the bottom.) There is no cutting, fitting or nailing. No water or mixing is required. Thermofill fits snugly around pipes and conduits, preventing heat losses at these points.



Pouring Thermofill in Attic



Leveling Thermofill

Covering Capacity

Installed three inches thick between the joists in the attic floor (as described above), one 50-pound bag of Thermofill will cover approximately 10 square feet. Thus, an average attic of 20'x40' dimensions would require about 80 bags of Thermofill.

Pays for Itself

Thermofill actually pays for itself in fuel saved. It is a permanent investment that shows actual cash returns each year and at the same time makes an astonishing improvement in home comfort—winter and summer. **Thermofill gives most insulation per dollar.**



For further details and literature, write to:

UNITED STATES GYPSUM COMPANY

300 W. Adams St.
Chicago, Ill.

Insulite—Structural Insulation

Manufactured by
THE INSULITE COMPANY
MINNEAPOLIS, MINNESOTA

What Insulite Will Do for You

With Insulite in the walls and ceiling you can keep comfortably warm in the coldest weather with considerably less fuel—have a pleasantly cool home when it is the hottest outside—enjoy freedom from cold, draughty floors—experience the pleasure of living in a home that is more comfortable, quieter, more healthful and more economical to heat.

In spite of the fact that these advantages add considerably to the worth of your home—both from the standpoint of liveability and resale value—they cost little if anything to obtain.

A Double Purpose Material

This is possible because Insulite is not a costly “extra”—it is simply a better structural material to replace something that would otherwise have to be used. Insulite Sheathing, for instance, takes the place of lumber on the outside of the frame. Although the finished job costs no more, the walls are considerably stronger and are far more resistant to the passage of heat and cold. Insulite Plaster Base replaces lath. It grips plaster twice as firmly, besides proving the most efficient heat-proofing. Insulite Wall Board is a beautiful interior finish, over four times as efficient in insulating against heat and cold as the lath and plaster which it replaces.

What Insulite Is

All Insulite is manufactured from strong, durable wood fiber, made into sheets that are one-half inch thick, possessing great structural strength. It is the pioneer board-form insulation. Sixteen years of constant and widespread use have proved that it is the most practical, durable, and efficient means of securing proper insulation—the guarantee of health, comfort and economy.

Insulite Sheathing

Insulation against heat and cold can be built into the walls of your home in the most practical and economical manner with Insulite Sheathing. Due to the fact that it replaces—at no additional expense—the lumber that would otherwise be used on the outside of the frame, Insulite Sheathing gives you the advantages of insulation without extra cost!

Laboratory tests of unquestioned authority have established the fact that Insulite Sheathing is more

INSULITE
the Wood-Fiber Insulating Board

Trade Mark

than three times as resistant to the passage of heat and cold as lumber. Equally authoritative tests prove that it makes a much stronger wall, able to withstand three times as great a wind strain.

No matter what type of frame house you are building, Insulite Sheathing is practical to use. Any exterior finish—stucco, brick, veneer, siding, or shingles—may be applied over Insulite Sheathing as readily as over lumber.

All Insulite Sheathing is supplied in sheets four feet wide, one-half inch thick, and from eight to twelve feet long. It is wrapped six sheets to a bundle.

Specifications

Application

Apply Insulite vertically, directly to studding set on 16" centers. Straighten crooked studs before applying Insulite.

Keep sheets $\frac{1}{4}$ " apart at all edges and ends. Never force into place.

Nailing

Nail with large headed roofing nails, $1\frac{1}{2}$ " long, spaced $4\frac{1}{2}$ " apart. Nail to intermediate studs first. Then nail edges and ends. Place header where INSULITE sheets meet.

Wood Siding

Apply directly over INSULITE Sheathing. Make all siding joints butt on studding.

Stucco

Over Insulite Sheathing apply galvanized self-furring wire or metal lath. Nail to studding with $1\frac{1}{2}$ ", 14 gauge, wire staples. Apply stucco in approved manner.

Brick Veneer

Nail brick ties through INSULITE Sheathing, to studding. Lay up brick in usual manner.

Shingles

Apply wood strips over INSULITE Sheathing at right angles to studding. Space strips as many inches on centers as shingles are to be exposed to weather.



For further details and literature, write to:

THE INSULITE COMPANY

Minneapolis,
Minnesota

Insulite Plaster Base



A better plaster job in a better home is guaranteed by Insulite Plaster Base. In addition to its heat-proofing efficiency, which paves the way to all year comfort and every year fuel saving, Insulite Plaster Base possesses the added advantages of giving extra strength to the structure, eliminating lath marks and ugly blotches resulting from condensation, and reducing the number and size of plaster cracks.

Plaster is applied directly to the surface of Insulite Plaster Base. Thus, the cost of the lath ordinarily used is saved. This, together with the economy resulting from the ease of handling the handy 18"x48" unit, means a lower building cost. The long edges of this unit are ship-lapped to make an absolutely tight wall. It is packed ten to a bundle.

Specifications

Application

Apply INSULITE PLASTER BASE directly to studding, ceiling joists, or rafters set 12" or 16" on center. Apply sheets to break joints. Apply with burlap finished side exposed.

Space sheets $\frac{1}{4}$ " apart at all ends.

Nailing

Nail with 4d box nails spaced $5\frac{1}{2}$ " on center—16 nails to a sheet—approximately 6 lbs. of nails per thousand sq. ft.

It is a good practice to apply a 4" strip of metal lath to all corners to reinforce plaster and reduce corner cracks.

Plastering

Apply hard wall or wood fiber plaster, preferably the latter, not less than $\frac{3}{8}$ " thick, according to plaster manufacturers' specifications. (We recommend three-coat work.) While plaster is drying it is absolutely necessary, in cold weather, that the rooms be well ventilated. Moisture cannot pass through INSULITE PLASTER BASE and can only be carried off by adequate ventilation.

One-Inch Plaster Base

For use in ceilings, and for both side-walls and ceilings of gas-heated houses, a double-thick, one-inch Insulite Plaster Base unit is made. The edges are offset on all sides to heat-seal every joint. Write for additional information.

Notice!

Additional information about Insulite Sheathing, Plaster Base, and Wall Board will be gladly furnished on request. If you are erecting a flat roof building, you should know of Insulite roof insulation. Insulite for acoustical correction will interest builders of churches, auditoriums, schools, etc. For information or samples, address The Insulite Co., Builders Exchange, Minneapolis, Minn.

Insulite Wall Board



Insulite Wall Board combines the service of the most efficient known structural insulation with an interior finish of a highly desirable character. Replacing lath and plaster it makes the wall or ceiling about five times as resistant to heat and cold—at little, if any greater cost; many times even less.

The beautiful burlap-like surface texture of Insulite offers decorative possibilities limited only by the ingenuity of the decorator. You may plan its use in any room of the house with perfect confidence that the result will be most pleasing. By all means it should be used in the attic. Here it makes waste space useable, besides putting a heat-tight shield over the whole house.

Insulite Wall Board is made in sheets one-half inch thick, four feet wide, and from eight to twelve feet long, wrapped six sheets to a bundle.

Specifications

Application

Apply INSULITE Wall Board burlap finished side exposed, lengthwise with studdings, ceiling joists, or rafters set 12" or 16" on center. For such finishes as Craftex, Textone, etc., use headers at end of sheets.

Keep all sheets $\frac{1}{4}$ in. apart. Never force into place!

Nailing

First nail to intermediate studs with 2" finishing nails spaced 8" apart, driven at a slight angle and set slightly below surface of board. It is not necessary to nail edges which are held in place by panel strips.

Decorating

Insulite Wall Board may be painted after being properly sized. Use either Insulite Self-Sizing paint or chip glue for this purpose. Any paint may be then used.

Surface may be left in natural state. Stencils may be used for decorative borders.

For staining Insulite Wall Board, alcohol stains are recommended, but benzol stains may be used.

Textone, Craftex, etc., may be used. Cover joints with 2" strip of wire screen. Apply finish according to manufacturer's specifications.

Note: When used for acoustical correction, Insulite Wall Board must not be painted or sized. It may be stained.

Battens

After finishing surface as desired, cover all joints with batten strips and apply such other strips as are needed to obtain the desired panel effect.



For further details and literature, write to:

THE INSULITE COMPANY

Minneapolis
Minnesota

Insulation, Sheathing, Lathing—Combined in One Material

MAFTEX

The "Thermal-Insulating" Board
That Has Structural Strength

Manufactured by

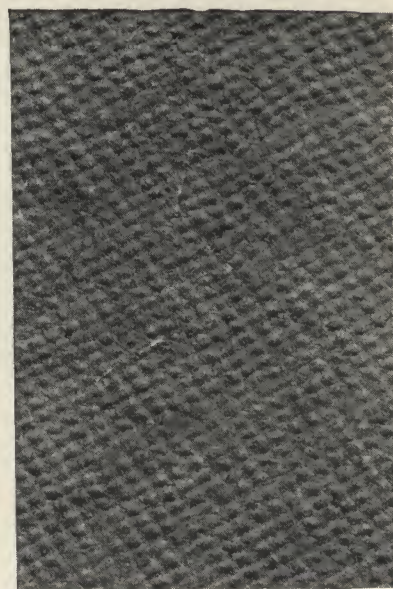
**MACANDREWS & FORBES
COMPANY**

200 Fifth Avenue, New York

Plant: Camden, New Jersey



Licorice roots, toughened by four or more years perennial undersoil growth, give MAFTEX its insulating efficiency and structural strength.



MAFTEX as it looks "on the job"—Note the interesting, even texture of the ripple bonding surface 2/5 actual size.

MAFTEX "Thermal-Insulating" Board has been developed for these uses.

MAFTEX owes its insulating-structural efficiency to the fibers of licorice roots. Its makers have long been nationally known for tough, enduring products made from the roots of licorice. Thousands of tons of licorice roots are imported annually by this company from vast European fields. In the development of MAFTEX, the densely compacted cellular structure of licorice roots was found to possess the insulating and structural qualities desired in a board that would not only stop the passage of heat units but also permit its use with confidence in place of, not merely as a supplement to, wood sheathing and lathing.

In fabricating MAFTEX, the licorice is first extracted from the roots, which are shredded, "cooked" and cleansed of all non-fibrous material. The pure root fibers are then waterproofed and pressed into non-laminated, ripple-surfaced boards ready for immediate insulating-structural use.

MAFTEX saws and nails cleanly, like ordinary lumber. It is swiftly applied. Used on roof rafters and exterior side wall studs in place of wood sheathing, MAFTEX stiffens the structure, remains unaffected by structural strains, moisture and the ravages of time.

Used on interior walls and ceilings, to take the place of lathing, MAFTEX forms an enduring bond with gypsum plaster that, in repeated tests, has failed to loosen under a "direct pull" of 1,000 pounds to the square foot, becoming at the same time an effective husher of room-to-room transmission of sound.

MAFTEX will not attract rats or vermin, and is immune to bacterial development.

Thickness, Sizes and Weights

MAFTEX Structural Insulating Board is $\frac{7}{8}$ inch in thickness, 4 feet wide and 8, 9, 10 and 12 feet long. Weight is approximately 750 pounds per 1,000 square feet. Lengths and widths are cut scant to prevent "crowding" at the joints. MAFTEX is shipped, wrapped or unwrapped.

General Uses of MAFTEX

Sheathing for Walls and Roofs

MAFTEX may be applied wherever wood sheathing was formerly used. It is nailed direct to the studding as a base for exterior treatment on side walls and to the rafters, on the roofs where it prevents the great loss of heat allowed by the usual forms of construction.

Naturally, the builder will appreciate the fact that the large sheets of MAFTEX, 4 feet wide by 8, 9, 10 and 12 feet long, provide a valuable stiffening action to the frame work of the structure. Such boards, nailed to intermediate studs as well as along the edge, resist distortion and twisting whether clapboarded, shingled or stuccoed as in the best work, or left exposed. This structural strength is proved by the test shown on pages 4 and 5. The high insulating qualities of MAFTEX, in addition to the rigidity which it gives to the building, make it possible to secure two results in the one product.

Base for Interior Plastering

MAFTEX makes an unusually satisfactory plaster base, or lathing material, for gypsum plaster because it adds insulation to the structure and at the same time provides a plaster bond much stronger than with ordinary lath. The illustration on this page shows the start of one of the "Drag-Strain" tests used to determine the strength of this bond. And in the long run the plasterer saves time by more rapid work and uses less plaster, as there is no forcing of the plaster through for key.

Finished Interiors Without Plastering

If desired, the attractive MAFTEX surface may be left without plaster and the surface may be painted, kalsomined, left natural, or treated with one coat of special preparations for textural effects. Not only is this method of treatment economical, but unusually effective and beautiful results may be secured.



For further details and literature, write to:

MACANDREWS & FORBES COMPANY

200 Fifth Ave.
New York, N. Y.

MAFTEX Thermal Insulating Board

Sound Deadening

MAFTEX is a most effective sound deadening material, for the same qualities which provide heat and cold insulation guarantee its sound absorbing value. It may be laid on top of joists for single floors or between double floors.

Properties of MAFTEX

MAFTEX is handled easily and swiftly. It has the structural qualities desired, saws and nails cleanly, and reduces construction time, effort, and cost.

MAFTEX undergoes no change in inherent structure. When properly applied it will not buckle, crack, warp, nor disintegrate after application. The enduring qualities of MAFTEX have been proved beyond all doubt.

MAFTEX may be applied without the supplementary use of roof or side wall sheathing. It is both insulation and sheathing. It has the strength and resiliency that withstand windstrain, vibration, atmospheric change and other conditions to which construction is subjected after completion.

MAFTEX forms a perfect base for gypsum plaster in place of lath. It is easily and quickly applied. It requires no forcing of ground coats through to key.

MAFTEX affords effective insulation because it is composed of millions of "dead air" cells that become a barrier to the passage of heat and cold.

Results of Tests

Insulating Value

Expressed in scientific terms MAFTEX allows only 0.34 British Thermal Units per hour, per square foot, per degree difference in temperature, per inch in thickness to pass through when tested under accurate conditions. In ordinary language this means that MAFTEX is about three times as resistive to the passage of heat as yellow pine and about eighteen times as efficient as concrete.

Structural Strength

The distortion test here illustrated clearly indicates the strength of MAFTEX for sheathing compared with wood as ordinarily used for the same purpose. Similar panels, each 8x8 ft., sheathed, respectively, with two sheets of MAFTEX and with $\frac{7}{8}$ x12-in. wood sheathing, tested by tightening a turnbuckle between the panels show MAFTEX to be only $2\frac{5}{8}$ -in. out of plumb when the wood panel is $12\frac{1}{2}$ -in. from the perpendicular. This extreme resistance to twisting and distortion enables the architect to secure insulation plus structural strength in one material.

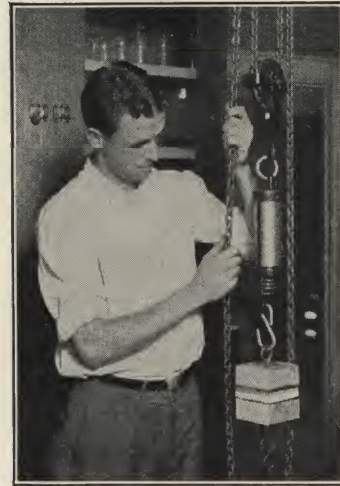
Plaster Bond

MAFTEX makes a perfect base for gypsum plaster. Its use adds insulation to the structure and at the same time provides a plaster bond much stronger than with ordinary lath. Innumerable tests have shown that a pull of approximately 1,000 pounds per square foot is required to cause rupture, and even then the tearing apart did not occur at the contact of the plaster with the MAFTEX face.

Nail-Holding Strength

A test for nail-holding ability is one of many drastic trials made in the MacAndrews & Forbes Company's laboratories with typical production "runs" of MAFTEX. A 10-in. square of MAFTEX is

bolted on one side to a block of wood. On the other side it is spiked with four six-penny nails to a similar block of wood. With the test scales recording 250 pounds pull, three nails pulled out of the wood and only one nailhead pulled through MAFTEX.



A test that proves the plaster base strength of MAFTEX "Thermal-Insulating" Board. In repeated tests of this kind, with gypsum plaster, 1000 pounds direct pull to the square foot has failed to loosen the bond.



The structural strength of MAFTEX "Thermal-Insulating" Board is well demonstrated by this distortion test.

After the turn-buckle had been given eighty-four turns the MAFTEX panel was only $2\frac{5}{8}$ inches out of plumb whereas the wood panel was $12\frac{1}{2}$ inches from the perpendicular. A very important factor which should be given consideration is the amount of recovery when the turn-buckle is released. In the test shown above after the load was removed the MAFTEX panel returned more than 54% or so that it was only $1\frac{1}{8}$ inches off. The wood panel recovered only 17% or so that it was $10\frac{3}{8}$ inches from plumb. This extreme resistance to distortion and twisting proves the structural strength of MAFTEX.



For further details and literature, write to:

MACANDREWS & FORBES COMPANY

200 Fifth Ave.
New York, N. Y.

Masonite Structural Insulation

Made by

MASON FIBRE COMPANY

111 West Washington Street, Chicago, Illinois

Masonite Structural Insulation

Manufactured from wood fibre by a special process of explosion and felting. It has exceptional strength and is manufactured for use as a structural sheathing, sound deadener, plaster base, for interior finish in its natural state or with paint or other popular wall finishes applied directly to it. Write for complete book of specifications and details.

Masonite
MANUFACTURED LUMBER FOR
STRUCTURAL INSULATION

board to studs, sills, plates or headers. Use standard galvanized 1½-in. roofing nail, with ¾-in. heads, all nails to be 4 in. apart and ¾ in. from all edges. Drive nails flush with surface of Masonite.

Insulation Value

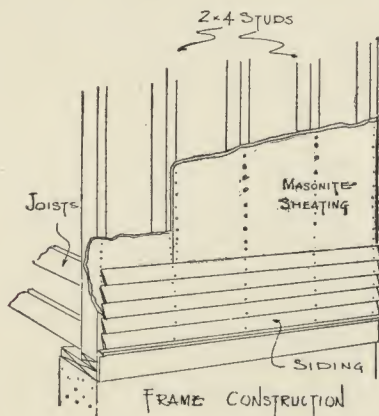
Tests show a heat insulating value of 0.321 per inch thickness per square foot per degree Fahrenheit difference per hour. Masonite comes in boards 4 ft. wide, approximately 65 lbs. per 100 sq. ft. When used as an insulator, sheathing, plaster base, under roofs, or floors, the building is made warmer and quieter, and a decided saving in fuel is effected.

Specifications

Specification No. 1.—Frame Buildings with Wood Siding or Shingle Finish:

Material—Structural insulation for sheathing all exterior walls shall be Masonite Structural Insulation approximately ⅞ in. thick.

Framing—Studs, joists, sills and plates shall be framed as in ordinary frame construction. All studs shall be placed accurately on 16-in. centers. Where horizontal



joints are necessary, use 2x4-in. headers cut in between the studs. Any odd spaces required to make over-all lengths shall be located in or near the middle. No extra cross bracing other than commonly used required.

Application—The Masonite boards shall be applied vertically and directly to the framework, allowing ample bearing surface for nailing on all edges.

Board shall be placed ⅞ in. apart at sides, top and bottom. Do not force boards into place.

Around window and door frames, or where tight joints are wanted, bring Masonite to close contact. Nail 3-in. strip of Masonite to back of frames.

Cut Masonite to fit snugly around rafters that project beyond face of studs.

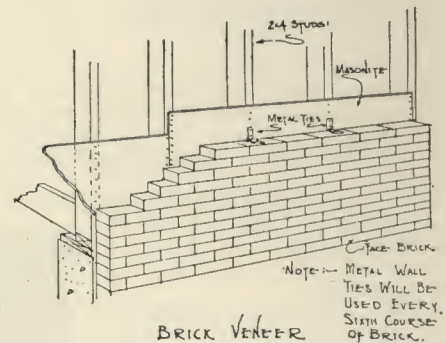
Nailing—Beginning at top, nail Masonite first to intermediate studs and then entirely around all edges of

Sidewalls—Wood siding is applied directly over Masonite without the use of building paper, nailing through into studs. Siding boards shall butt on studs.

Shingle Walls—If walls are to be shingled, furring strips 1x2 in. shall be applied over Masonite and nailed through into the studs. Shingles to be applied in accordance with the manufacturer's specifications.

Specification No. 2.—Frame Buildings Having Either Stucco, Stone or Brick Veneer Finish:

Material—Structural insulation for all exterior walls shall be Masonite Structural Insulation approximately ⅞ in. thick.



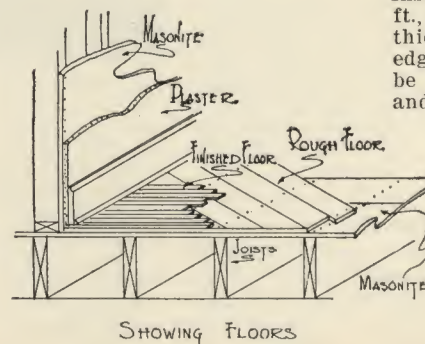
Framing, Application and Nailing—See Specification No. 1.

Stucco Finish—Self-furring metal lath shall be nailed through Masonite into each stud. Apply lath in customary manner. Stucco to be applied in accordance with manufacturer's specifications.

Stone or Brick Veneer—Anchors shall be nailed through Masonite into studs in customary manner. Set out ½ in. is preferable. Metal wall ties shall be used every sixth course of brick.

Specification No. 3.—Plaster Base and Insulation for Buildings, Including Partitions and Ceilings:

Material—Masonite Insulating Lath, size 4x2 ft., approximately ⅞ in. thick with the 4 ft. edges shiplapped, shall be used as insulation and plaster base.



For further details and literature write to:

MASON FIBRE COMPANY

111 W. Washington St.
CHICAGO, ILL.

HOME BUILDERS CATALOG

See Next Page

MASONITE STRUCTURAL INSULATION—(Cont'd)

Framing, Application for Framework and Nailing—Framing—See Specification No. 1. Nailing—Use 5d. box nails, 5-in. on center, first nailing to intermediate studs, then nailing edges.

Application for Masonry Walls—Wood furring strips 1x2 in. shall be securely anchored to masonry walls and ceilings, in approved manner, on 16-in. centers. On masonry ceilings, headers to be cut in every 4 ft. between furring strips.

Plaster—Quick setting gypsum plaster containing not more than 10% lime shall be used. Plaster should set in about 1½ hours, and not exceeding 2 hours. Use an accelerator if plaster fails to set in 2 hours. Apply the plaster directly to the Masonite, pressing it well into the joints. The first coat, or scratch and brown coat together must have a thickness of not less than ¾ in. and must be thoroughly dry before applying finish coat. Total thickness shall be not less than ¾ in.

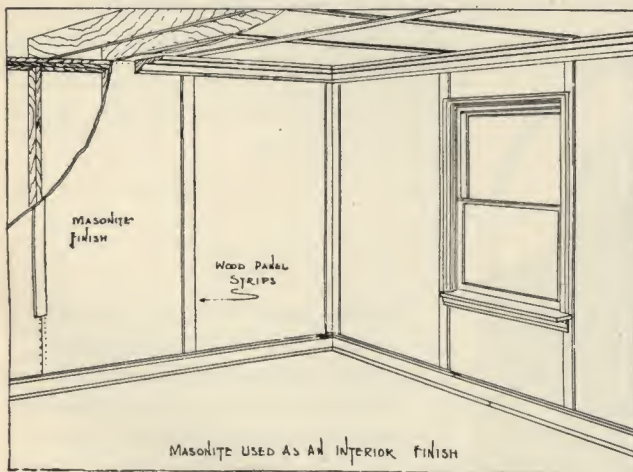
Note: Keep room being plastered well ventilated in both winter and summer.

Specification No. 4—Interior Finish:

Material—Structural insulation for all walls shall be Masonite Structural Insulation approximately ⅞ in. thick.

Framing, Application and Nailing—See Specification No. 1 for framing. Nailing should be 4d. finishing nails, driven at approximately a 30° angle, on intermediate studs. Either a 1½-in. roofing nail or a 5d. box nail on ends and sides. Use 6d. finishing nails for Masonite batten strips.

Trim—Joints to be covered with wood battens 1x3 in. or suitable width, not less than 2 in. wide. Masonite bat-



tens may be used to secure more artistic finish. Baseboard and other trim to be as commonly used.

Painting and Decorating—Masonite may be left in its natural pleasing finish, or it may be stained without sizing, or painted over size or priming.

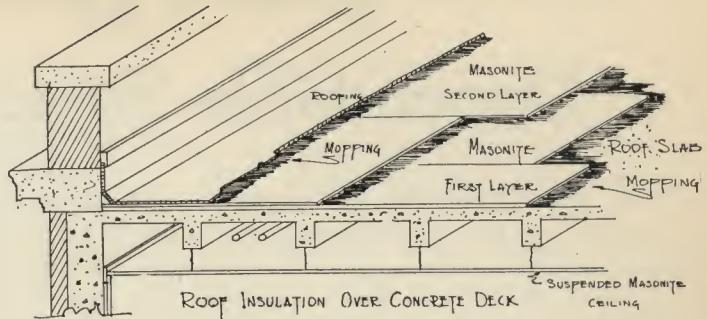
Specification No. 5—Roof Insulation Applied on the Underside of Wood Rafters:

Note: This form of application is suitable for insulating roofs, and for new shingle roofs of wood, slate, zinc, copper and other types of roof covering materials, which require a solid wood deck for nailing.

Material—Roof insulation shall be Masonite Structural Insulation approximately ⅞ in. thick as manufactured by the MASON FIBRE COMPANY, Chicago, Ill.

Framing—The rafters shall be spaced 16 in. on centers. Whenever it is necessary to have a horizontal joint in the Masonite, a 2x4-in. header shall be cut in between the rafters. Rafters may be spaced 24 in. on centers when considered desirable, but when so spaced, 2x4-in. headers shall be cut in between all rafters, on not to exceed 36-in. centers, but plaster must not be applied to Masonite.

Application—The Masonite boards shall be applied



lengthwise of and directly to the rafters, and set in place so as to have a bearing for nailing along all edges. Leave ⅛-in. space between adjoining boards, also at top and bottom of boards. Around openings and at corners, or where a snug joint is desired, the Masonite shall be fitted carefully and brought to moderate contact. Do not force into place.

Roof Insulation Over Concrete Deck

Specification No. 6—Roof Insulation Over Concrete and Wood Decks:

Material—Roof insulation shall be Masonite Roof Insulation, size 3x4 ft. or 4x4 ft., as manufactured by the MASON FIBRE COMPANY, Chicago, Ill.

Concrete Deck—Preparation—The roof deck shall be reasonably smooth, dry, well cured and free from all rubbish before applying Masonite. If not well cured, the concrete deck shall be primed with a standard concrete primer in the customary manner.

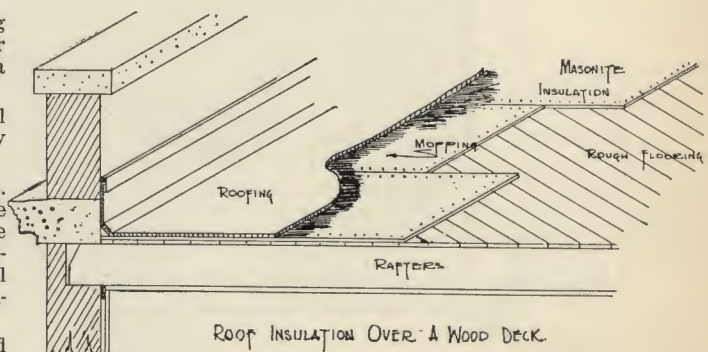
Application—Mop concrete deck with a heavy, uniform coat of hot roofing pitch, or asphalt, using not less than 30 lbs. per 100 sq. ft. Masonite shall be laid in low melting paint pitch, or asphalt, and pressed firmly into place while the pitch or asphalt is hot. All edges of Masonite shall be brought to moderate contact. Do not force boards into place. Transverse joints and joints of the successive layers shall be broken.

If more than one layer of Masonite is to be applied, mop the top surface of the previous layer in the same manner as stated above but without primer.

Wood Deck—Preparation—Roof deck shall be made of seasoned, dressed and matched lumber, properly nailed, all nails driven flush with boards. The deck shall be laid to slope and pitched to drain, as shown in plans and specification. Deck shall be swept clean before laying Masonite Insulation. Nail furring strips around walls and where required.

Application—The first layer of Masonite shall be nailed to wood deck, using 1½-in. standard roofing nails, with ⅜-in. head, and spaced 12 in. on centers, nailed flush with surface. Nails in body of board to be staggered.

If more than one layer is required, mop the surface with roofing pitch, or asphalt, using not less than 30 lbs. per 100 sq. ft. Press Masonite firmly into hot asphalt, or roofing pitch, breaking all joints.



For further details and literature write to:

MASON FIBRE COMPANY

111 W. Washington St.
CHICAGO, ILL.

INSO BOARD —

Dependable Structural Insulation

INSO BOARD is made of long, tough, cellular, thoroughly sterilized fibres of wheat straw, interlaced into thick panels having great structural strength, ready for immediate application in any building construction. INSO BOARD, while built primarily for insulating, has many additional uses, such as sheathing, plaster base, sound deadener, basement and attic lining, etc.

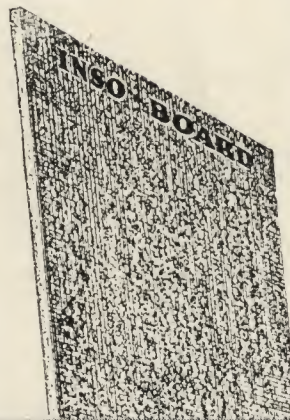
USES: INSO BOARD has many uses as a structural and finishing material, in each case giving its full measure of insulation. INSO BOARD is manufactured in panels 7-16 in. thick, 4 ft. wide, and any length desired. Therefore, INSO BOARD is a highly adaptable, structural building insulating material and can be used with success in any construction, either new or old. No construction is complete without the great comfort-giving advantages of INSO BOARD.

VALUE OF INSULATION: The term Insulation is generally known and valued highly by all home owners and builders. The use of insulating materials came as a result of a long

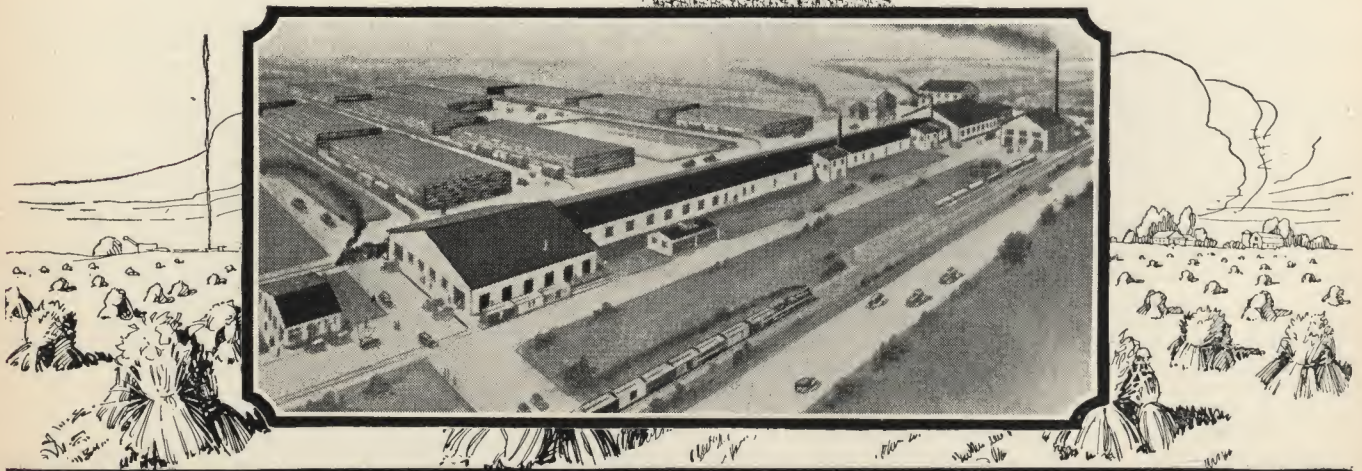
INSO BOARD in any form of construction is a sound investment and not an extra expense. It insures the maximum of comfort.

known, much felt need. Insulation is not a novelty in home construction; it is not an additional item that may or may not be used according to one's taste. Insulation is absolutely necessary in gaining perfect, all year comfort, better construction, and higher efficiency from any heating system. INSO BOARD is moisture proof. Therefore, it should be used as sheathing, plaster base, roof insulation, interior wall finish, and under floors so that the home may be completely "blanketed" with this damp-proof, draught-stopping, durable structural insulating material.

SAVES MONEY: INSO BOARD, besides reducing costs by its many structural uses, saves (by actual test) ONE-THIRD on fuel in the winter. This saving, when computed over a short period, actually pays for the original cost of insulating your home. Thereafter, you may figure a yearly dividend as long as fuel is used for heating.



If you are a builder, a home owner, a prospective home owner, insulate by all means. Read the following pages. Then decide for yourself if you can afford to build without it.



For further details and literature, write to:

STEWART INSO BOARD CO.

ST. JOSEPH
MISSOURI

HOME BUILDERS CATALOG

See Next Page

INSO BOARD

Details of Manufacture—Specifications —Strength and Insulation Tables

MANUFACTURE: INSO BOARD is manufactured from the long, tough, cellular, sterilized fibres of wheat straw interlaced into flawless, sturdy, moisture-proof panels having great structural strength. The millions of tiny dead air spaces imprisoned in these long tough straw fibres which are non-conductors of heat, cold, or sound, explain the insulating qualities of INSO BOARD.

Behind the manufacture of INSO BOARD is a group of men of many years' experience in manufacturing insulating materials. Straw, while having greater insulating value than most other fibrous materials (proven by tests conducted in the laboratories of the Armour Institute of Technology), is an economical raw material; consequently INSO BOARD may be had at a very reasonable cost.

The mills of the Stewart Inso Board Company are under the operation of a staff of skilled, experienced, technical men. In charge of the testing laboratory is a chemist of long experience and nationally recognized ability—Dr. Sidney D. Wells, who for many years was connected with the government pulp testing laboratory at Madison, Wisconsin.

The economy of building with INSO BOARD, because of its high insulation value, has more than anything else brought it into favorable recognition. Having built our mill in a strategic position in the heart of the wheat belt and near the geographical center of the United States, we are insured an abundant supply of raw material and the utmost efficiency in manufacture and distribution. Thus we are able to offer an inexpensive, structural insulating board for all building purposes.

We insure the high quality of all INSO BOARD that leaves our mill. Every board is given the most rigid inspection and must give the purchaser complete satisfaction.

Note the firm texture of INSO BOARD—easy to cut—nail—and put into place—strong and durable.

Showing relative insulating values of other materials and INSO BOARD



INSO BOARD
One Inch



WOOD
3 Inches



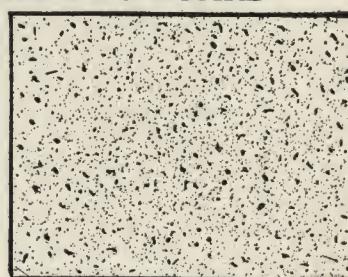
PLASTER BOARD
4 Inches



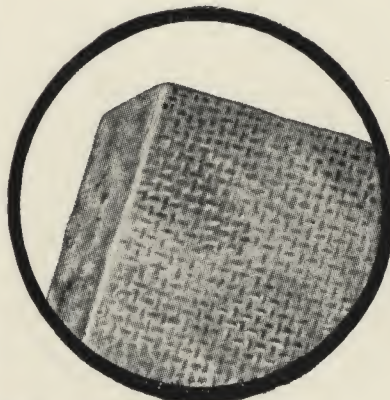
PLASTER
8 Inches



BRICK
12 Inches



CONCRETE
25 Inches



SPECIFICATIONS: Thickness $\frac{7}{16}$ ". Width 48"—to fit ordinary studding. Lengths, 6, 7, 8, 8½, 9, 10 and 12 ft. in stock. On special orders, any length desired. Weight approximately 60 lbs. per 100 square feet.

STRENGTH: INSO BOARD is stronger than most materials it supplants in construction. It is sturdy, durable, made so by the securely enmeshed and interwoven straw fibres of which it is made. Wherever used, INSO BOARD not only gives insulation but also serves to reinforce the walls. INSO BOARD is actually stronger on the walls than ordinary sheathing and is more durable and satisfactory than wood or metal lath. Copy of Armour Institute tests sent on application.

INSULATION: There is no more satisfactory insulating material on the market than INSO BOARD. Below is a table showing the comparative insulating values of other materials and 1" of INSO BOARD. Study over this table. With INSO BOARD you may build with equal strength and permanency, greater protection and comfort and at no added cost, as you will not require other materials to provide the durability and comfort you want and should have.

A STRUCTURAL BOARD: INSO BOARD is a highly adaptable structural insulating material. Its uses are not confined to insulation only. It may be used as sheathing, inner wall construction, plaster base, between floors, as basement and attic lining, in garages, for permanent and temporary partitions, and a multitude of other uses. INSO BOARD may be painted and decorated with perfect results.

If you are a builder of homes, make your sales faster by offering attractiveness and comfort with every building. Insulate, by all means, preferably with INSO BOARD.



For further details and literature, write to:

STEWART INSO BOARD CO.

SAINT JOSEPH
MISSOURI

INSO BOARD

[Showing the vulnerable points of every home which should be INSULATED—]

1—The roof deck. Authorities state that fully 65 per cent of all heat losses are through the roof. INSO BOARD will stop that loss.

2—The walls. INSO BOARD should be used for plaster base or for inner lining or finished walls. It may be left in its natural color—a pleasing, golden tan—or painted, or decorated to suit the taste.

3—The floors and ceiling. All floors and ceilings should be protected with INSO BOARD.

With these points perfectly insulated, the home is "blanketed." Cooler in summer. Warmer in winter. And you will save one-third fuel.

INSO BOARD in most cases not only does not increase building expense, but the home is more strongly constructed, a smaller heating plant is required, and a $\frac{1}{3}$ saving in fuel is gained.



General Application

FRAMING: All joists, studs, rafters, plates, and sills to be spaced accurately 16" on centers. 2"x4" headers shall be cut in between the framing for horizontal joists and every four feet on ceilings.

APPLICATION: Spray INSO BOARD lightly and pile, not less than 24 hours before it is applied.

Apply full length, vertically, directly in contact with framing prepared as above, with ample bearing for nailing along all edges.

An open space of $\frac{3}{16}$ " shall be left at top and bottom of boards and between two boards meeting over a nailing base.

NAILING: Nail first along the intermediate studs, starting at top. Then nail along edges of each board, setting nails $\frac{3}{8}$ " from the edge and 3" apart on edges; space nails 4" to 6" apart along intermediate members.

NAILS: Use $1\frac{1}{2}$ " galvanized roofing nails with $\frac{3}{8}$ " heads. Where INSO BOARD is applied to $\frac{7}{8}$ "x $1\frac{3}{4}$ " wood furring strips, use $1\frac{1}{4}$ " galvanized roofing nails with $\frac{3}{8}$ " heads.

APPLICATION ON ROOF: All attics and roofs should be insulated.

OVER RAFTERS: Wood sheathing shall be applied either over or under INSO BOARD. When INSO BOARD is used over rafters or studs, nail 1"x2" furring strips over INSO BOARD to rafters or studs horizontally, spacing to suit shingles. When nailing to the under side of roof rafters, extend INSO BOARD to a tight contact with wall or floor insulation at all points.

When applying to continuous wood surfaces, such

as flat roof sheathing, or floors, lay the edges in moderately close contact and nail with large headed galvanized $1\frac{1}{4}$ " roofing nails.

SHEATHING AND INNER WALLS: Apply as described above in General Application.

Apply siding directly to INSO BOARD, nailing through siding and INSO BOARD into the studs.

FLOORS: Lay INSO BOARD between rough and finished floor of all rooms. Nail finished floor through INSO BOARD. Prevents moisture, drafts, dirt or soot, creaking, and sound transmission.

ATTIC LININGS: Nail INSO BOARD to attic rafters and studs as described in General Application. INSO BOARD may be painted and decorated to provide an attractive, cozy spare room.

PLASTER BASE: Give particular care to sprinkling before application and to spacing between boards, and apply INSO BOARD as in General Application. Reinforce plaster with metal lath at all interior corners and at junction of frame and masonry wall. Exterior corners should be reinforced with corner bead. Cover all board joints with 4" strips of metal lath as further plaster reinforcement. Use only a gypsum plaster—use no lime. Be sure that ventilation is thorough at all times, but do not allow plaster to freeze.



Fits readily—saws quickly
—nails easily



For further details and literature, write to:

STEWART INSO BOARD CO.

SAINT JOSEPH
MISSOURI

INSO BOARD

Showing the many additional uses to which INSO BOARD may be put as a Structural Board.

As a money saver, INSO BOARD has many additional structural uses.



Do not overlook the fact that INSO BOARD gives insulation in every use.



At left shows method of using INSO BOARD as a plaster base, at the same time providing a moisture proof, insulated inner wall. At right shows manner of lining basement ceiling and economically providing cold storage closet. Above, finishing attic and providing a spare room. INSO BOARD may be successfully painted and decorated.



The uses of INSO BOARD are not limited merely to the walls, ceilings, floors, and roofs as interior insulation.

Many home owners and builders are taking advantage of the many other economical structural uses INSO BOARD affords. Particularly in its use as a wall board for lining attics, playrooms, basements and garages, for inside partitions, etc.

INSO BOARD may be used as a plaster or stucco base. (It has a bonding strength much greater than wood lath. Write for copies of Armour Institute tests.) It insures a more permanent plaster bond, represents a saving in the amount of material and labor required, and at the same time, you have gained insulation.

INSO BOARD may be used in building fruit or cold storage closets and as a basement ceiling lining, preventing dirt from coming up through the floors from the furnace and the discomforts of drafts.

INSO BOARD may be used under

carpets, thereby giving longer wear to the carpeting and a pleasing softness underfoot.

INSO BOARD may be used as a sound deadener, and should be used in all apartments and homes to gain this advantage with, of course, its most valuable feature of insulation.

INSO BOARD is an economical building board. It costs no more in the actual construction, and it pays for itself many times over in the saving in fuel it gives. It gives comfort and health. It gives value, permanency, structural strength, and desirability to the home. Whether you are building a home to live in or to put on the market—insulate with INSO BOARD. The insulated home is the desirable home. It costs no more and is worth more.

We shall be glad to furnish circulars on the many uses of INSO BOARD, full specifications and detailed information, and answer any and all inquiries you may desire to make. Write for full particulars. Your inquiry will be appreciated.



For further details and literature, write to:

STEWART INSO BOARD COMPANY

SAINT JOSEPH
MISSOURI

UNITED STATES MINERAL WOOL — A NON-COMBUSTIBLE Insulator and Sound Deadener

Manufactured by
UNITED STATES MINERAL WOOL COMPANY
 280 Madison Ave., New York—Factory: Stanhope, N. J.

Products

MINERAL WOOL is made by converting melted scoria into a fibrous state which holds in suspension from 92 to 96 per cent of air—more than any other non-combustible material, therefore approaching Nature's ideal insulation against heat and cold more nearly than any other. The United States Mineral Wool Co. is the pioneer in this line and is far in advance of others producing similar insulating material.



Illustration shows Mineral Wool in Walls for insulation and in floors for deadening.

Principal Uses

For interlining roofs, walls, ceilings, floors, etc., nothing ever has been discovered to equal Mineral Wool, and at its low price will repay its original cost in fuel saving the first few winters, to say nothing of the increased comfort it affords during the hot weather. A Mineral Wool lined house is warm in winter and cool in summer so long as the structure stands, and the first cost is the last cost—a lifetime of comfort.

Damp-Proof, Sound-Proof, Vermin-Proof, Fire-Resisting

Mineral Wool, with its tremendous body of dead air, suspended within its minute crevices, acts as a stop for outside heat and cold, as well as exterior sound and dampness. Because of its mineral character it is absolutely non-burnable and resists fire like solid stone.

How to Install

Make the house thoroughly proof against dampness, sound, fire and vermin by filling the space between studding from sill to plate with Mineral Wool. Also carry this filling up between the rafters from plate to ridge of roof and thus provide an unbroken armor of insulation.

In filling walls the work should be handled when the lathing is done. First, lath one side of any given space completely, then begin lathing the other side, working from the floor up. When the lathing has reached a height of two or three feet, fill in by hand the Mineral Wool to the top of lathing, then apply a few feet more of lath, filling in the Mineral Wool and continue in this way till the top is reached.

Pack in the Mineral Wool closely to fill all space compactly. The pressure of the Mineral Wool behind

the lath will not interfere at all with the keying of the plaster.

How to Estimate Requirements

The grade of Mineral Wool always used in building construction weighs approximately one pound per square foot for each inch of thickness, or twelve pounds per cubic foot when packed under ordinary hand pressure.

To determine the quantity of Mineral Wool needed to line outside walls the full thickness of the studding, take the entire distance around the building on a horizontal line and multiply by height of studding. This will give the square feet of outside surface. Deduct, ordinarily, from one-third to one-half for doors, windows, chimneys, studding, bracing, etc. Multiply the remainder by thickness of studding. The result will be the number of pounds of Mineral Wool required.

To insulate the ordinary frame house fully as described on this page will cost from \$200 up, according to the size of the house. Three or four winters' saving of fuel will repay this cost and the saving will continue year after year.

Pays Big Returns in Comfort

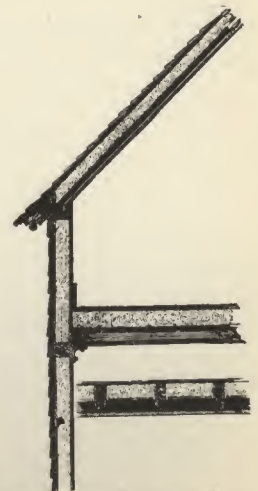
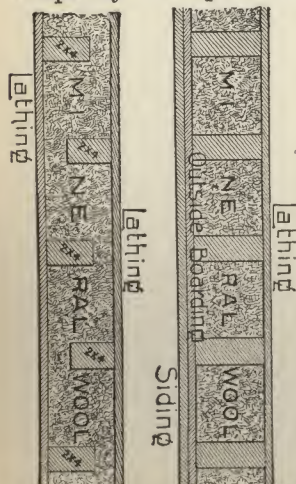
A house with an even range of temperature is not only much more comfortable but much more healthful. There are fewer colds and headaches. With Mineral Wool lined floors there will be no chilling drafts that keep the feet continually cold in winter.

Such a house in summer is several degrees cooler than the outside temperature and the rooms directly under the roof, ordinarily like a baker's oven can be occupied with comfort even during the heated portions of the day.

The few dollars more that Mineral Wool lining costs will return more dividends on the investment, the year round, than any similar sum that can be put into a house, therefore the family that builds for the years to come cannot afford to neglect this modern, common-sense feature.

Drawings at left show Mineral Wool packed studding in walls, the drawing nearest the margin being of the staggered studding type of construction.

The drawing at the right shows Mineral Wool in outside walls and between rafters, also placed above and between beams for deadening floors.



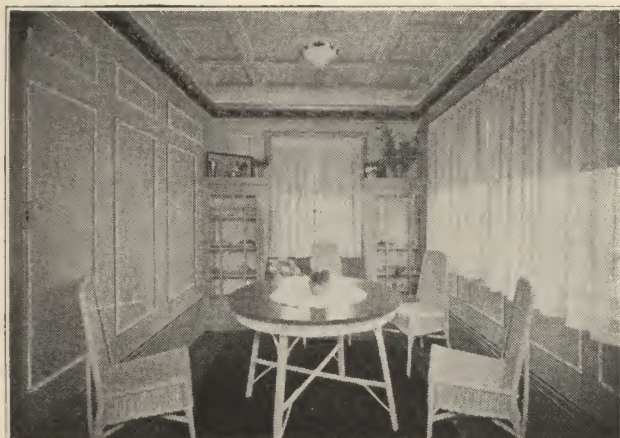
For further details and literature, write to:

UNITED STATES MINERAL WOOL COMPANY

280 Madison Ave.
 NEW YORK

Alton Special Cedar Grain Wall Board

Made by
ALTON BOX BOARD & PAPER CO.
ALTON, ILL.



Have a New and Beautiful Sun Parlor at Small Cost

Cedar Grain lends itself perfectly to the construction of such modern conveniences as sun parlors or extra rooms in the otherwise useless attic. With just a little good taste and at surprisingly small cost these can easily be made among the most beautiful and useful rooms in the house. A folder will be sent on request showing suggestions for many novel and attractive panel effects.

Use Cedar Grain for—

- Covering of Walls and Ceilings,
- Refinishing Unused Attics,
- Refinishing Basements,
- Lining Garages,
- Map or Black Boards,
- Large, Thin Panels in Furniture,
- Sheathing between Floors to render them Dust-Proof,
- Mirror and Picture Backs,
- Booths for Fairs, Exhibitions, Etc.
- Show Window Backgrounds,
- Drawer Bottoms,
- Partitions,
- Insulation of Walls and Floors.

Cedar Grain will make your Garage like a room in the house. It will protect your car from dust and dirt in summer and in the winter will allow you, at a low cost, to guard it against the frozen radiators and cracked engine blocks of sub-zero weather.

Ask us for our booklet showing amount of Cedar Grain required for rooms of various dimensions.

If you have a room you could use if usable, apply Cedar Grain.

Product

The Wall Board with the Red (Cedar) Grain.

The total expense of an extra room is the insignificantly low cost of merely enough Alton Special Cedar Grain Wall Board to close it in.

There need be no labor cost whatever, because you can put it on yourself—and have fun doing it. Even the decoration is taken care of by the rich, velvety cream tint that is dyed into its pleasing surface. It can, however, easily be painted, stencilled or paneled at only a small additional cost. The only tools needed for applying Wall Board are a saw and a hammer.

Every Panel Waterproofed and Sized

Alton Special Cedar Grain Wall Board is supplied with the idea of giving the home owner a COMPLETE wall material with nothing left to do but cut to size and nail on. The finished job will be one that you may well be proud of and it will be as permanent in its usefulness as the house itself.

Cedar Grain is a widely recognized building material that has been manufactured by this concern in steadily increasing quantities for many years, therefore it is far from an experiment. Every panel has a tested strength of 325 pounds per square inch, forming a sturdy, lasting wall that excludes heat, cold, wind and dampness and is easy to clean and decorate. Packed in heavy craft paper and well bound, it always reaches the job in perfect condition and spotlessly clean.

Cedar Grain will be found the ideal material for cutting up the basement into separate compartments for furnace, fuel, laundry and fruit, and if applied to basement ceiling will stop entirely the filtering up of soot and dust to the costly damage of walls and draperies in the rooms above.

Table of Sizes and Packing

| Size Bd. In. Ft. | Sq. Ft. per Bd. | Bds. per Bd. | Sq. Ft. in Bundle | Size Bd. In. Ft. | Sq. Ft. per Bd. | Bds. per Bd. | Sq. Ft. in Bundle |
|---------------------|-----------------------|--------------------|-------------------------|---------------------|-----------------------|--------------------|-------------------------|
| 32x 6 | 16 | 10 | 160 | 48x 6 | 24 | 10 | 240 |
| 32x 7 | 19 | 10 | 187 | 48x 7 | 28 | 10 | 280 |
| 32x 8 | 21 | 10 | 213 | 48x 8 | 32 | 10 | 320 |
| 32x 9 | 24 | 10 | 240 | 48x 9 | 36 | 10 | 360 |
| 32x10 | 27 | 10 | 267 | 48x10 | 40 | 10 | 400 |
| 32x12 | 32 | 10 | 320 | 48x12 | 48 | 10 | 480 |
| 32x14 | 37 | 10 | 373 | 48x14 | 56 | 10 | 560 |
| 32x16 | 43 | 10 | 427 | 48x16 | 64 | 10 | 640 |



For further details and literature, write to:

ALTON BOX BOARD & PAPER CO., Alton, Ill.

White Rock Fireproof Gypsum Wall Board



Manufactured by
THE AMERICAN GYPSUM COMPANY
Port Clinton, Ohio



THE use of WHITE ROCK Gypsum Wall Board in the construction of your new home means everlasting satisfaction, beauty, comfort and protection against fire.

WHITE ROCK is made from gypsum rock. The gypsum is mined much the same as coal, and is then refined and toughened by a special process. While still plastic the processed gypsum is moulded and compressed between two sheets of heavy, tough, durable, long fibered paper and formed into boards of convenient size— $\frac{3}{8}$ inch thick, 32 inches and 48 inches wide by 6 to 10 feet in length (special lengths upon request). By the time the process is completed the material has hardened, returning to its original rock condition. Every precaution is taken in the manufacture of WHITE ROCK Wall Board to insure uniformity and quality.

All mining and manufacturing is entirely under the control of this Company.

Will Not Burn

Since WHITE ROCK is really rock it cannot burn—not only is it non-burnable itself, but it prevents the spread of fire. Consequently WHITE ROCK means a real protection for the home or any structure where it is used. Even under severe heat it does not deteriorate.

Will Not Warp, Shrink or Crack

Because it is made of gypsum rock, WHITE ROCK is not affected by atmospheric or climatic conditions. It therefore remains flat and smooth year after year—an attractive permanent wall.



—beauty, comfort and protection against fire.

As an Insulation

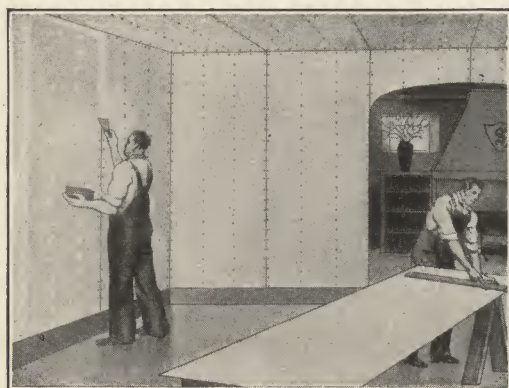
The most effective insulation is produced by the confining of myriads of air cells. In WHITE ROCK these air cells are enclosed in gypsum, which is in itself an excellent non-conductor. Consequently buildings walled with it are cooler in summer and more easily and economically heated in winter.

Sound Resisting

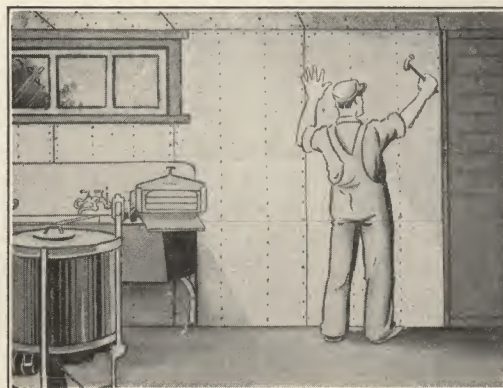
Due to the peculiar nature of gypsum, WHITE ROCK resists the passage of sound and therefore insures greater privacy and quietness. This quality has a particular appeal to discriminating home builders.

Will Take Any Decoration

When joints and nail heads have been filled with WHITE ROCK finisher, the wall presents a smooth, even surface suitable for any type of decoration—wall paper, paint or rough texture finish. Panels are unnecessary but may be used if desired. Unusually beautiful textured effects in solid or blended colors may be obtained with the new decorative material now being manufactured by all the leading paint manufacturers.



Finishing with White Rock Joint Filler makes the walls as smooth and solid as a plastered job.



Laundry rooms are kept free from soot and dirt when lined with WHITE ROCK Fireproof Wall Board.



For further details and literature, write to:

THE AMERICAN GYPSUM CO., Port Clinton, Ohio

White Rock Fireproof Gypsum Wall Board—(Continued)

CANNOT WARP OR SHRINK



Both Sides Alike

Easy to use—saves time in applying because the workmen do not have to examine each side for right or wrong side. Moisture and climatic conditions cannot affect WHITE ROCK, and as the board cannot warp, shrink or crack, wall decorations last indefinitely.

STRONG AND DURABLE

4-Ply Nailing Edge

This means that the nails will not pull thru; they hold the board like a vise. Nails can also be driven closer to the edge without cracking or splitting.



USES FOR WHITE ROCK

Walls and Ceilings, Clothes Closets, Finishing Attic Rooms, Fruit Cellars, Furnace Rooms, Sleeping Porches, Farm Buildings, Garages, Insulation Between Floors, Partitions—Permanent or Temporary Store, Office and Factory Partitions, Summer Cottages, Sun Parlors, Underneath Stairs

The Famous 4-Ply Nailing Edge

You gain certain definite advantages in using WHITE ROCK Wall Board. It is the only board with a four-ply nailing edge. This nailing edge allows the nails to hold the board like a vise; the walls are sure to stay flat and true. Nails can be driven closer to the edge without danger of splitting or cracking.

Both Sides Alike

This saves time in handling and applying—there is no looking around for “right” or “wrong” side, because there is no “wrong” side with WHITE ROCK. Should one side become marred or scuffed in handling, the other side can always be faced out. WHITE ROCK is sized on both sides.

Easy to Erect—Economical

WHITE ROCK comes all ready for nailing to the joists or studding and can be cut and nailed as easy as pine board. The large broad sheets are readily fitted in place and the edges are true and accurate. The

whole operation of erecting WHITE ROCK is a most economical one, and the results are all that can be desired in a rigid, fireproof, permanent wall at low cost.

A Final Word

WHITE ROCK Fireproof Wall Board has been used in thousands of homes. From everywhere we receive word of its complete satisfaction, of its perfect quality and money-saving results. The sale of WHITE ROCK has grown tremendously by word-of-mouth advertising; that is to say, the recommending of WHITE ROCK by one home builder to another. Ordinary products cannot sell like this. WHITE ROCK, then, is the Wall Board we are asking you to use in the construction of your home. It will prove to you all we claim for it—what users claim for it. It will help you have the comfort, the pleasure for which you have so patiently planned and so delightfully dreamed.

Your dealer probably handles WHITE ROCK, but if he does not, write us for full information.

Two rooms from one quickly result with the use of WHITE ROCK Wall Board for remodeling.



The corner of a comfortable garage makes a fine work shop.

For cleaner basements and warmer homes, line the basement ceiling with WHITE ROCK Wall Board.



For further details and literature, write to:

THE AMERICAN GYPSUM CO., Port Clinton, Ohio

HOME BUILDERS CATALOG

BEAVER BOARD



Manufactured by
THE BEAVER PRODUCTS COMPANY, Inc.
 Thorold, Ont. BUFFALO, N. Y. London, Eng.



Atlanta, Ga.
 1304 Candler Bldg.

Kansas City, Mo.
 12th St. and Crystal Ave.

SALES OFFICES:
 Chicago, Ill.
 2246 W. 49th St.

New York, N. Y.
 110 E. 42nd St.

Minneapolis, Minn.
 415 Lumber Exchange

For Other Products See Pages:

Plasters (81)

Roofings (130)

Plaster Wall Board (107)

Insulating Board (86)

The Product

The original fibre wall board was Beaver and now after 25 years of continually improving the quality, a remarkable new Beaver Board is offered. For walls and ceilings in new frame buildings; remodeling over old wall materials; building partitions; finishing off summer homes; utilizing attics or waste space; building additional offices; insulating against heat and cold; sound deadening; and for 101 practical uses in the home, office, store or factory, the new improved Beaver Board is the right material to use.

Beaver Board is made of selected fibre thoroughly meshed and bonded in large, light panels, in two weights, the standard $\frac{1}{8}$ " thick and the jumbo $\frac{1}{4}$ " thick. Both weights are supplied in 32" and 48" widths and in lengths of 6, 7, 8, 9, 10, 12, 14 and 16 feet. One side of the board is pebbled and the other is plain, giving a choice of two decorative finishes.

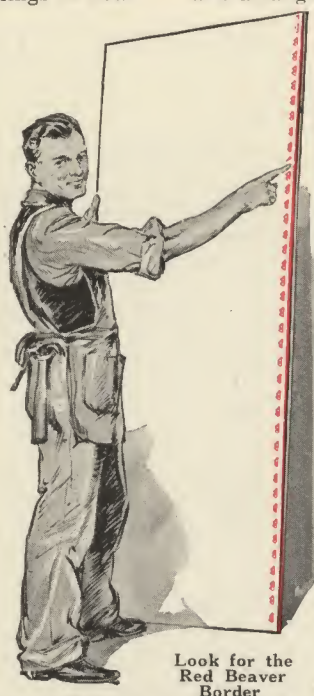
Advantages

The New Improved Beaver Board marks the first and most advanced development in fibre wall board in the last ten years. Impartial tests prove it has greater strength, greater rigidity, greater moisture resistance, better application advantages than any other fibre wall board on the market. The surfaces are specially treated to procure the finest of painted effects and to provide economy in paint consumption. Once applied Beaver Board will not chip, crack or fall and leaves no room for costly repairs to creep in. It is quickly and easily applied in any weather.

Application

Beaver Board is nailed directly to studs, and joists; to furring over masonry; or right over the old wall material. All edges are nailed by providing headers with 3d flat head nails at intervals of 6" and centers with finishing nails at intervals of 12". Center nails are countersunk and filled.

After painting, the panel intersections are covered with decorative moulding strips. A great variety of panel designs and arrangements are possible.



BEAVER BOARD

Beaver Tile Board

Beaver Tile Board builds beautiful, durable tile walls at about a tenth of the cost of using ceramic tile and as to appearance it can even surpass it. There are no roughly filled cracks between the tiles; it does not chip, crack or fall; it will last as long as the building itself; and is easily washed to maintain its glistening freshness. Made in panels 48" wide and in lengths 6 to 16 feet long, deeply indented into oblong tiles 4" x 1½". Nailed horizontally across the studs or over old wall materials, painted and enameled, and finished with moulding strips along the top and at the corners.

Beaver Black Board

Comes in slabs of standard Black Board widths, 3, 3½, and 4 ft. and in lengths of 6, 7, 8, 9, 10, 12, 14 and 16 ft. A splendid surface that will retain its writing qualities for years is built up on a five ply base of Beaver Board. It is smooth, non-glaring and has just the right texture to take chalk readily. Beaver Black Board never grays or grows shiny and never needs replacing—cannot chip, crack, pit or fall. Its first cost is considerably less than slate and it applies more easily with a great saving in labor.

Free Plan Service

A Special Plan Service giving individual attention to every case is available to home builders, contractors or carpenters. Working drawings, decorative suggestions and estimated costs for any wall and ceiling job in which Beaver Board is being figured on will be supplied free of charge. Send rough sketch showing layout of rooms and their dimensions and within a few days a complete plan will be forwarded, without obligation.

Three Simple Steps



For further details and literature, write to:

THE BEAVER PRODUCTS COMPANY, Inc., Buffalo, N. Y.

BESTWALL the superior plaster wallboard



Manufactured by

THE BEAVER PRODUCTS COMPANY, Inc.

Thorold, Ont.

BUFFALO, N. Y.

London, Eng.



Atlanta, Ga.
1304 Candler Bldg.

Kansas City, Mo.
12th St. and Crystal Ave.

Chicago, Ill.
2246 W. 49th St.

New York, N. Y.
110 E. 42nd St.

Minneapolis, Minn.
415 Lumber Exchange

SALES OFFICES:

For Other Products See Pages:

Plasters (81)

Roofings (130)

Fibre Wall Board (106)

Insulating Board (86)

The Product

Beaver Bestwall, the superior plaster wall board is used for walls and ceilings in the finest of new homes or for remodeling and repair work, where absolutely rigid, firesafe material is desired, where economy of time and labor costs are essential and at the same time a permanent decorated result must be secured.

Bestwall comes in panels 4 feet wide and in lengths 6, 7, 8, 8½, 9 and 10 feet. It is approximately ¾-inch thick and is manufactured in the square or new exclusive beveled edge. Bestwall consists of a core of pure gypsum rock plaster impregnated with a small amount of shredded wood fibre for binding purposes. It is surfaced front and back with tough fibre facings perfectly bonded to the gypsum rock core. The front facing is of a distinctive creamy color and is specially prepared and treated to allow a range of interior decoration to suit every taste.

Exclusive Beveled Edge

Beaver Bestwall with the exclusive beveled edge is a most important improvement in plaster wall board. It absolutely insures perfectly smooth, seamless walls and ceilings regardless of varying panel thicknesses or unevenness in studding. Where two beveled edges of Bestwall meet a keyed-in, invisible joint blended into the surface is obtained with the greatest of ease and economy.

Its Advantages

Beaver Bestwall supplies a plaster wall of pre-set gypsum rock, already mixed and set under proper conditions and supervision; saves time in application, requires no drying out delay before rooms can be occupied; will not crack, warp or fall; can be decorated more economically and redecorated satisfactorily because of its exclusive creamy colored sur-



The exclusive beveled edge insures smooth seamless, keyed-in joints.

face; provides excellent protection against fire; and is unusually durable.

Approved by Fire Underwriters

Beaver Bestwall is approved by the National Board of Fire Underwriters and every panel carries their identifying mark.

Application and Decoration

Beaver Bestwall is nailed to studs and joists, joints filled with plaster and painted or papered. It can be easily cut by scoring and breaking or by sawing. It is nailed on all edges, headers being provided in the framing for the ends, with 3d flat head nails placed at intervals of about 7 inches. It is nailed to center supports with finishing nails placed about every 10 inches.

A special plaster is furnished for use in filling joints and holes over countersunk center nails. Painting or papering is next and the job is finished. (See label on back of panels for detailed directions.)

Identification

Beaver Bestwall is easily identified by the exclusive creamy colored surfacing and by the label on the back stamped with the underwriters approval.

Free Plan Service

A Special Plan Service giving individual attention to every case is available to home builders, contractors or carpenters. Working drawings and decorative suggestions for any wall and ceiling job in which Bestwall is being figured on will be supplied free of charge. Send rough sketch showing layout of rooms and their dimensions and within a few days a complete plan will be forwarded without obligation.



Nail it



Fill Joints



Even costliest dwellings welcome the advantages of Bestwall.



Paint it



or Paper it



For further details and literature, write to:

THE BEAVER PRODUCTS COMPANY, Inc., Buffalo, N. Y.

NATIONAL MINERAL WALL BOARD

Manufactured by the
NATIONAL GYPSUM COMPANY

Jackson Bldg., Buffalo, N. Y.

Conway Bldg., Chicago, Ill.

For Other Products See Page (84)



Exceptional Qualities of National Mineral Wall Board

Strength—Stronger by actual test than old-fashioned plaster wall board.

Weight—Considerably lighter. One man can handle it.

Fireproof—Highly fire-resisting—being mineral it cannot burn. Bears the Underwriters' label.

High Insulating Quality—The National process creates countless tiny air cells, sealed in the gypsum.

Flexible—Stands far more bending around corners and through places difficult of access.

Reversible—If you mar one side, you can use the other.

Easy to Saw and Nail—Clean edges—no splintering.

Cost—No more than old-fashioned plaster wall board.

Produced—In following standard sizes: 4 x 6 ft., 4 x 7 ft., 4 x 8 ft., 4 x 9 ft., 4 x 10 ft.

Quickly Erected

Because of its lightness National lays up quickly. It saws and nails like lumber. Apply directly to studs and joists. Goes up without dirt and litter over old plaster. Crack-proof.

Absorbs Sound

Takes Any Decoration

Paper, paint, or panel.

The National Properties

The National deposits of gypsum at Clarence Center, N. Y., embraces 1,000 acres with an estimated quantity of 10,000,000 tons of gypsum. The plant erected on this property is one of the largest of its kind in the industry.

The property at National City, Mich., covers over 1,000 acres, with an estimated deposit of 30,000,000 tons. The plant here is slightly larger than the one at Clarence.

These two properties, owned outright by the Company, recognized as providing ample service for a hundred years or more.

The Purest of Gypsum Rock

National Mineral Wall Board is made from the purest gypsum rock used for such a purpose.

The official tests show the New York rock to assay up to 98.16 per cent pure—the highest grade mined in the East.

The tests of rock from the Michigan deposit show purity up to 99.76 per cent—less than $\frac{1}{4}$ of 1 per cent foreign matter.

The New National Process

A new exclusive process makes it lighter, thicker yet stronger than any old-fashioned plaster wall board.

Buy From Lumber Dealers

National Mineral Wall Board is carried by leading lumber dealers.

Sold Under a Gold Bond Guarantee

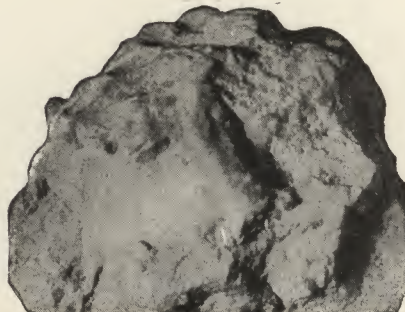
This is the only wall board sold under the Gold Bond Guarantee of its makers.

National
MINERAL WALL BOARD



Sold under the GOLD BOND GUARANTEE

White as snow. So pure that it frequently comes in crystals. The rock of which National Mineral Wall Board is made.



For further details and literature, write to:

NATIONAL GYPSUM COMPANY

Jackson Bldg.
BUFFALO, N. Y.

SHEETROCK

The FIREPROOF WALLBOARD



TEXTONE

THE PLASTIC PAINT



Manufactured by the
UNITED STATES GYPSUM COMPANY

300 West Adams St., Chicago, Illinois

BRANCH OFFICES

New York, N. Y., 17 State St.
Buffalo, N. Y., Ellicott Square Bldg.
Boston, Mass., 100 Bolyston St.
Washington, D. C., 604 Lenox Bldg.
Baltimore, Md., 402 Keyser Bldg.
Philadelphia, Pa., Foot of 58th St.

Atlanta, Ga., 1130 Candler Bldg.
Pittsburgh, Pa., 917 Bessemer Bldg.
Cleveland, Ohio, 942 Hanna Bldg.
Cincinnati, Ohio, 806 Atlas Bank Bldg.
Detroit, Mich., 1418 Penobscot Bldg.
Milwaukee, Wis., Grove and Oregon Sts.

Minneapolis, Minn., 402 Thorpe Bldg.
St. Louis, Mo., 1204 Syndicate Trust Bldg.
Kansas City, Mo., 444 Lathrop Bldg.
Omaha, Neb., 1407 W. O. W. Bldg.
Denver, Colo., 603 Denham Bldg.
Los Angeles, Cal., 530 W. Sixth St.

For Other Products see pages as follows: 66, 73, 91, 111.

Sheetrock

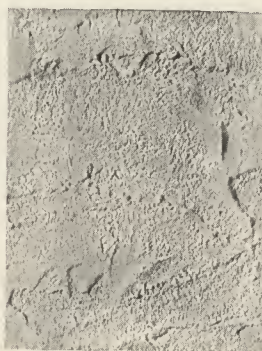
Sheetrock is a gypsum wall and ceiling material in unit form. It is manufactured in sheets, 32" and 48" wide and 6' to 10' long, and consists of a 3/8" gypsum core protected by a specially made fibre covering which is folded by a patented process to form square, reinforced nailing edges. These edges provide greater nailing strength and assure tight, flush joints. Sheetrock is strong and, when properly applied, adds definite bracing strength to the building. Notable among Sheetrock advantages are the hard surfaced paper; the absence of felt or grain marks; and the ease of decoration.

Fireproof: Sheetrock does not burn or support combustion and it thus provides a barrier to the spread of flame. Each sheet bears the inspection label of the Underwriters' Laboratories, Incorporated.

Does not warp or buckle: Sheetrock, made with a gypsum core, is not affected by ordinary climatic changes. It does not warp or buckle.

Easy to apply: Sheetrock saws and nails like lumber and can be applied directly to studs and joists or right over old construction. Because of its ease of handling and the large size of the sheets, Sheetrock can be erected rapidly. Its use, therefore, reduces construction time.

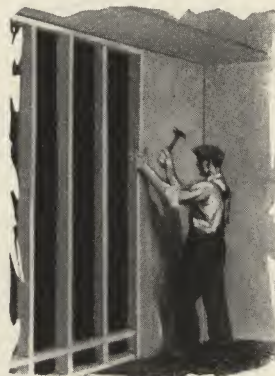
Takes any decoration: When joints and nailheads are concealed with Sheetrock Finisher or the Sheetrock Reinforced Joint System (which laces joints with special fabric and cement) the Sheetrock wall offers a smooth, enduring base for any type of decoration — plastic paint, wallpaper or ordinary paint.



English Texture

Textone

Textone, The Plastic Paint, is an interior decorating material that may be used over Sheetrock or any other kind of properly prepared wall surface. Textone offers "third dimension" possibilities in planning wall and ceiling decorations. It affords this opportunity economically and with the assurance of complete satisfaction, as the average decorator can secure beautiful Textone effects without special training.



Nailed to Studding or Joists

Textone lends itself readily to the reproduction of Caenstone, Travertine Stone, sand swirl effects and period textures, as well as to the more informal treatments. Color possibilities are almost without limit, as remarkably beautiful single color or two-tone effects can be produced easily.

Advantages: (1) Textone dries overnight without shrinkage. (2) It contains no ammonia and is free from objectionable odor. (3) Accidental splashes on floors or woodwork will not harm the finish and are easily wiped off while wet. (4) Later, if a new color is desired a coat of ordinary paint may be applied without concealing the texture.



Spanish Effect

Textone Glaze: Two-tone color effects may be secured by giving the Textone a coat of Textone Sealer to stop suction. Over this a coat of Textone glaze, tinted with colors in oil, is applied. The surface is then wiped with a cloth to bring out the high lights. Directions for use will be found on the package.



For further details and literature, write to:

UNITED STATES GYPSUM COMPANY

300 W. Adams St.
Chicago, Ill.

CELOTEX INSULATING LUMBER AS SHEATHING

Manufactured by

THE CELOTEX COMPANY

645 N. Michigan Ave., Chicago, Ill.

Mills: New Orleans, La.

Branch Sales Offices in many principal cities

(See Telephone Books for Addresses)

All Reliable Lumber Dealers Can
Supply Celotex

BUILD this modern way to make your house summer-cool, winter-warm, more economical to heat, quieter, stronger.

Celotex Insulating Lumber as sheathing replaces wood lumber and eliminates building paper. Walls sheathed with Celotex are stronger than those as ordinarily sheathed with wood lumber. (See illustration of strength test.) And Celotex shuts out heat, cold, wind and moisture.

Used as sheathing, Celotex adds insulation and strength back of wood, brick and stucco exteriors at no extra building cost.

Material

Sheathing for all exterior walls shall be Celotex Standard Building Board.

Applying Celotex

The Celotex shall be moistened and applied to framing in accordance with specifications described in section entitled "Celotex Insulating Lumber," see index under "Insulation."

Applying Exterior Finishes

Wood Siding. Apply wood siding directly over Celotex, nailing through to studs. Siding boards shall butt over studs.

Applying Shingles. Nail 1" x2" furring strips horizontally over Celotex to studs, spacing to fit the shingles. Nail shingles to furring strips.

1. Self-furring Stucco Bases. Beveled wood lath, self-furring wire lath, expanded metal lath or other self-furring stucco bases shall be applied directly over Celotex, nailing or stapling through the Celotex into the studs.

2. Non-furring Stucco Bases. (a) Wood furring strips shall be nailed vertically over each stud through the Celotex to the stud. Staple, or nail wood, wire or metal lath to furring.

(b) Metal furring, round iron rods, or crimped band iron shall be stapled through the Celotex into the studs. Wire the metal lath to furring.

(c) When using self-furring nails or staples, these shall be driven through the Celotex into the studs in applying the lath.

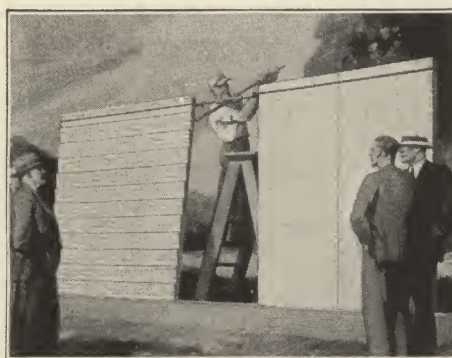
Applying Brick or Stone Veneer.

Anchors for brick or stone work shall be nailed through Celotex into the studs. The brick or stone shall be laid in the usual manner. Allow not less than 1/2" space between the Celotex and the brick or stone.

General Note. In all cases, nails or staples of sufficient length to enter the wood backing at least 1" must be used.



AS SHEATHING—Celotex replaces wood lumber and building paper—adding strength and insulation back of wood, brick and stucco exteriors at no extra cost.



CELOTEX BUILDS STRONGER—The test shows why Celotex builds stronger walls. Two frames are built exactly alike, except that one is sheathed with Celotex, the other with wood sheathing. Under strain from the turn buckle the Celotex frame always pulls the wood sheathed frame out of shape. This is because broad, strong boards of Celotex afford greater diagonal bracing to the walls.

CELOTEX
INSULATING LUMBER

For Other Celotex Products see pages: House Insulation, 87-89; Interior Finish, 437; Plaster Base, 72.

For further details and literature write to:

THE CELOTEX COMPANY

645 N. Michigan Avenue, Chicago, Illinois

HOME BUILDERS CATALOG

GYPLAP

The **FIREPROOF** Sheathing

ORIENTAL STUCCO



Manufactured by the
UNITED STATES GYPSUM COMPANY
300 West Adams St., Chicago, Illinois



BRANCH OFFICES

New York, N. Y., 17 State St.
Buffalo, N. Y., Ellicott Square Bldg.
Boston, Mass., 100 Bolyston St.
Washington, D. C., 604 Lenox Bldg.
Baltimore, Md., 402 Keyser Bldg.
Philadelphia, Pa., Foot of 58th St.

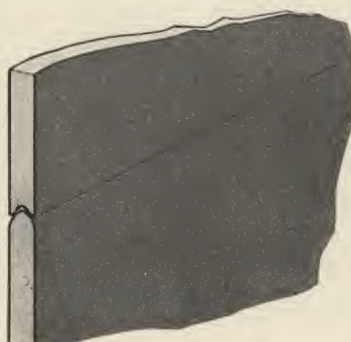
Atlanta, Ga., 1130 Candler Bldg.
Pittsburgh, Pa., 917 Bessemer Bldg.
Cleveland, Ohio, 942 Hanna Bldg.
Cincinnati, Ohio, 806 Atlas Bank Bldg.
Detroit, Mich., 1418 Penobscot Bldg.
Milwaukee, Wis., Grove and Oregon Sts.

Minneapolis, Minn., 402 Thorpe Bldg.
St. Louis, Mo., 1204 Syndicate Trust Bldg.
Kansas City, Mo., 444 Lathrop Bldg.
Omaha, Nebr., 1407 W. O. W. Bldg.
Denver, Colo., 603 Denham Bldg.
Los Angeles, Cal., 530 W. Sixth St.

For Other Products see pages as follows: 66, 73, 91, 109.

Gyplap

Gyplap, the Fireproof Sheathing, is a gypsum sheathing material that offers several important advantages in addition to remarkable sheathing efficiency. (1) Gyplap does not burn or transmit fire and thus protects the wood members that it surrounds. (2) It resists cold air infiltration. (3) Gyplap braces the frame structure because of its rigidity. (4) The tough fibre covering and patented interlocking edges eliminate the necessity of building paper. (5) Gyplap does not shrink. (6) It provides an ideal backing for siding, brick or stone veneer and stucco.



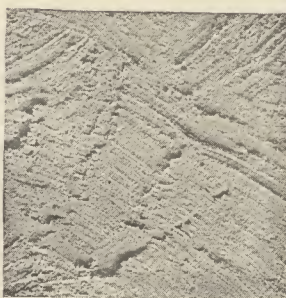
Gyplap—Note Tongue and Groove Joint



Typical Textures Possible With Oriental

tural style of the building upon which it is used. It is a scientifically compounded stucco furnished in Base and Finish coats, each ready mixed, waterproofed, easy to apply and durable.

Factory Mixed: Oriental Stucco Base and Finish coats are machine mixed with all necessary ingredients, including color. Both coats are ready for use with the addition of water only, thus eliminating possibility of insufficient mixing and color variation.



A Variety of Colors: Oriental Stucco Finish is offered in white and eleven beautiful colors. Because the colors are correctly proportioned and thoroughly mixed-in, a uniformly colored

exterior is assured when Oriental is used.

Any Texture: Oriental Stucco is remarkably plastic. Because of the ease with which it can be worked, the Finish coat is adaptable to any desired texture. Any competent plasterer can produce beautiful and satisfactory results with Oriental Stucco.

Size: Gyplap is manufactured in 24" by 8' units and is uniformly 1/2" thick. It can be quickly cut to fit snugly around openings and can be quickly erected.

Interlocking Edges: The patented "tongue-and-groove" edges of Gyplap interlock to form wind and vermin proof joinings.

Oriental Stucco

Oriental Stucco successfully meets the modern demand for stucco that will harmonize in texture and color with the architec-



For further details and literature, write to:

UNITED STATES GYPSUM COMPANY

300 W. Adams St.
Chicago, Ill.

Cabot's Creosote-Stained Shingles, Stained with Cabot's Creosote Shingle Stain

Samuel Cabot
Incorporated

BOSTON
141 Milk St.

NEW YORK
101 Park Ave.

5000 Bloomingdale Ave.
CHICAGO

Real Estate Trust Bldg., Philadelphia; 2035 E. 19th St., Kansas City;
Builders' Exchange, Minneapolis; Hibernian Bldg., Los Angeles;
444 Market St., San Francisco; 96 Front St., Portland, Ore.
Agents all over the Country.

Other Products

Cabot's Waterproof Collopakes; Old Virginia White; Double-White; Mortar Colors; Conservo Wood Preservative; Waterproofings; Dampproofing; etc. For Heat-Insulating and Sound-Deadening "Quilt" see page 90.

Cabot's Creosote Shingle Stains

For staining and preserving shingles, siding, and other exterior woodwork. The original and standard exterior stains, in use over forty years. Made of the strongest and purest pigments, colloiddally compounded to impalpable fineness and suspended in Cabot's Pure Creosote. "Creosote is the best wood preservative known." Rich, velvety, unfading colors, prove and guarantee. No one even claims to make better stains.

Cabot's Creosote-Stained Shingles

Standard red cedar shingles—meeting the most exacting requirements of the Shingle Associations—ready-stained with Cabot's Creosote Stains. Sound, live lumber, straight grain, uniform, non-warping. Last a lifetime.

All Sizes

16", 18" and 24" shingles for roofs and walls.

The Warmest House Finish

Warmer than clapboards, siding or stucco. Will save their cost over and over again in reducing fuel bills. Make houses warmer in Winter and cooler in Summer.

Cheaper Than Painted Siding

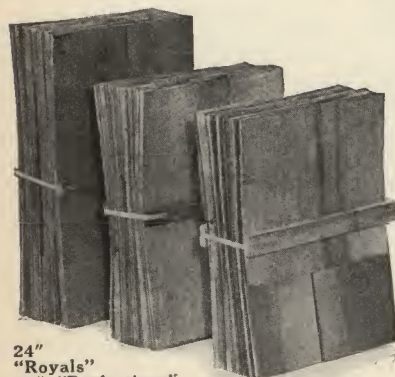
24" wall shingles are cheaper than siding, and much more picturesque and distinctive.

Much Handsomer

The deep, rich colorings of stained shingles are much handsomer than painted wood. The transparent stains sink into the wood and color it without covering it, bringing out the beauty of the grain.

Colors

All shades of moss-green, silver and weathered gray, tile red, bungalow, bark and tile brown and yellow, besides numerous special tones in great variety.



24"
"Royals"
18" "Perfections"
16" XXXXX

Blended Roofs

Shingles ready-bundled for laying blended-roofs in tile—reds, greens, grays and variegated effects of all kinds; or with instructions for mixing.

Cabot's Collopakes

Permanent, Penetrating Pigment Colorings.

Medium-Bodied: Light, free-flowing tints for stucco, brick and wood. Not as heavy as paint, lower in cost, easier to apply. Waterproof and Durable.

Heavy-Bodied Greens: Pure Unfading Greens for Blinds, Doors, Trim, etc. Do not grow dull and lifeless on exposure. Color remains fresh and lively.

Cabot's Old Virginia White

As bright and cool as fresh whitewash and as clean and durable as paint, but with no "painty" effect. The ideal white for shingles and other rough wood.

Cabot's Double-White

Much whiter than lead paint and has 50% greater hiding power. Two coats cover better than three of lead and oil. A flat brilliant white for all kinds of wood, cement, brick and metal work, outside or inside.

Cabot's Mortar Colors

Ready-mixed colors for mortar and concrete. Great coloring strength and labor-saving mixing qualities make them the cheapest colors to use. Uniform and lasting.

Cabot's Conservo Wood Preservative

A special creosote compound of greatest penetrating and preserving power. Protects piles, planking, screens, sills and all other lumber from decay or injury by Termites or other insects.

Cabot's Clear Waterproofings

For cement and brickwork. Colorless waterproofings that penetrate the pores of cement or brick and seal them against rain, preventing dampness and injury to surfaces and interior finish and decorations.

Cabot's Damp-Proofing

A black, bonding damp-course for direct plastering on brick and concrete. Saves lath and plaster, excludes moisture.

Cabot's Flexiblac

A flexible black bitumen protective coating for iron and steel timbers, girders, tanks, etc.



This artistic and cozy little house in Portland, Oregon, has a roof of Cabot's Creosote Stained Shingles, and wall shingles finished in Cabot's Old Virginia White, Heat-Insulated with Cabot's "Quilt." Harold Doty, architect, Portland.



For further details and literature, write to:

SAMUEL CABOT, Inc., Boston, Mass.

Edham KOLORED Shingles

Made by

THE EDHAM COMPANY, Incorporated

General Office—Minnesota Transfer, St. Paul, Minnesota. Factories—Minnesota Transfer, St. Paul, Minnesota
Mills—Vancouver, British Columbia and Vancouver, British Columbia

Sales and Service Offices—All Principal Cities

Wholesale Distributors for the Atlantic States

Arthur E. Lane Lumber Corp., Grand Central Terminal Bldg., New York, N. Y.



EDHAM KOLORED SHINGLES are made from selected, strictly clear red cedar timber in one of British Columbia's most modern shingle manufacturing plants. Vigilant inspection as adopted insures a 100% clear, 100% edge grain and 100% all heart shingle, as well as uniformity of grade and manufacture.

They are hand dipped from tip to butt while free from moisture, in chemically pure colors ground in linseed oil and suspended in a vehicle of special preservatives and "binder" that protect against fading and rotting and insure maximum life of color.

For the home which must be moderate in cost and outstanding in beauty, EDHAM KOLORED SHINGLES meet the every requirement, in addition to giving lasting comfort, lasting satisfaction and greater insulating value.

The beautiful color effects appeal to the artistic instincts—Tile Red, Moss Green, Bungalow Brown, Silver Gray, variegated shades and colors work wonders both on side walls and roofs, blending with the landscape or stressing architectural design. Any desired color can be secured by special order.



EDHAM KOLORED SHINGLES outlast ordinary nails — use ZINCLAD or copper nails. Prices quoted on ZINCLAD NAILS on application. Don't confuse EDHAM KOLORED SHINGLES with ordinary brands of stained shingles — they are a product of unquestioned merit.

Edham **KOLORED** Shingles



For further details and literature write to:

THE EDHAM COMPANY, Incorporated

St. Paul,
Minnesota

Creo-Dipt Stained Shingles

Made by

CREO-DIPT COMPANY, Inc.

General Offices: North Tonawanda, N. Y.

For Rebeautifying Your Old Home



Before Architect James Wm. Kideney, Buffalo, N. Y., had Creo-Dipts applied on an old building at the golf course of the Meadowbrook Country Club, Buffalo.

After Creo-Dipts had transformed this old building into an attractive ladies' locker room, with side-walls of very light gray Creo-Dipts—roof of dark weathered gray Creo-Dipts.



Creo-Dipt Houses Say "Buy Me"

ANY builder who has used Creo-Dipt Stained Shingles—either for a new home or for rebeautifying an old house with Creo-Dipts right over the old side walls—will tell you that Creo-Dipts' distinctive beauty makes any house easier to sell.

Many Beautiful Color Schemes

Write today for our new color chart showing the wide choice of these lovely Creo-Dipt colors. Or ask your lumber dealer to show you a Creo-Dipt color pad together with actual color reproductions of all sizes and types of Creo-Dipt houses designed by prominent architects.

Interesting Thatched Effects

If you are interested in Creo-Dipts for thatch roof effects, write for portfolio of Creo-Dipt thatch roofs, as well as instruction book giving details of design and construction. This is free to builders.

Sizes

CREO-DIPT ARISTOCRATS are 24 inches long, of random widths, and are 1 inch thick at the butt end.

CREO-DIPT ROYALS are 24 inches long, of random widths, and are $\frac{1}{2}$ inch thick at the butt end.

CREO-DIPT PERFECTIONS are 18 inches long, of random widths, and five shingles will measure $2\frac{1}{4}$ inches at the butt ends.

CREO-DIPT EUREKAS are 18 inches long, of random widths, and five shingles will measure 2 inches at the butt ends.

CREO-DIPT XXXXX are 16 inches long, of random widths, and five shingles will measure 2 inches at the butt ends.

CREO-DIPT XXX are 16 inches long, of random widths, and six shingles will measure 2 inches at the butt ends.

Covering Capacity

Creo-Dipt Stained Shingles are sold on the square basis. On side walls, one square of the 24-inch grades, when laid 10 inches to the weather, will cover 100 square feet; $10\frac{1}{2}$ inches, 105 square feet; 11 inches, 110 square feet. On roofs, this size should be laid $7\frac{1}{2}$ inches to the weather, and one square will then cover 75 square feet.

In the 18-inch lengths, one square will cover 100 square feet when exposed $5\frac{1}{2}$ inches to the weather; 6 inches, 111 square feet; $6\frac{1}{2}$ inches, 120 square feet; 7 inches, 129 square feet; $7\frac{1}{2}$ inches, 138 square feet; 8 inches, 148 square feet.

In the 16-inch lengths, one square will cover 100 square feet when exposed 5 inches to the weather; $5\frac{1}{2}$ inches, 110 square feet; 6 inches, 120 square feet.

Don't apply 50-year shingles with 10-year nails. Insist on best zinc-coated or copper nails.

CREO-DIPT COMPANY, Inc.

1342 Oliver Street, North Tonawanda, N. Y.

In Canada: Creo-Dipt Company, Ltd., 1610 Royal Bank Bldg., Toronto

Sales Offices in Principal Cities. Plants located for easy shipping at North Tonawanda, Minneapolis, Kansas City, Mo., Vancouver, B. C.



For further details and literature, write to:

CREO-DIPT COMPANY, Inc.

General Offices
North Tonawanda, N. Y.



Creo-Dipt roof and side-walls add beauty to this famous Music Box Cottage, designed by the T. H. Maenner Company, Omaha, Nebraska

For new homes of distinctive beauty

THE beauty of Creo-Dipt roof and side walls is always a sound investment, to a builder or to an owner.

Genuine Creo-Dipt Stained Shingles are selected cedar—100% straight-grain. Each shingle is preserved with a thorough coating of preservative creosote oils, so it often requires no care at all for years.

Rebeautify Old Houses, Too

Instead of repainting, lay Creo-Dipt Stained Shingles right over the siding or stucco of an old house. Re-roof with them, too. The cost is little more than two thorough re-paintings and from then on your savings begin.

You save paint, usually enough to pay the entire

cost of the Creo-Dipts in 5 to 7 years. You save fuel, because you have added two complete new coats of insulation at all points.

Ask your lumber dealer about the wide choice of Creo-Dipt colors. Be sure to insist upon *genuine* Creo-Dipts, used and endorsed by prominent architects and builders for the past 20 years. Look for the name Creo-Dipt on each bundle of shingles.

CREO-DIPT

Stained Shingles



For further details and literature, write to:

CREO-DIPT COMPANY, Inc.

General Offices
North Tonawanda, N. Y.

Weatherbest Stained Shingles

Manufactured by

WEATHERBEST STAINED SHINGLE CO., Inc.

GENERAL OFFICES: NORTH TONAWANDA, N. Y.

Plants at North Tonawanda, N. Y., and Minnesota Transfer, Minn.

Warehouses in Leading Centers

Products

WEATHERBEST Edge Grain Red Cedar Stained Shingles for roofs and side-walls; WEATHERBEST Colonial White Stained Shingles; WEATHERBEST Thatched Effect Stained Shingles; WEATHERBEST Creosote Shingle Stain; WEATHERBEST Genuine Hand Rived Shakes.



Weatherbest Variegated Color Roofs

For WEATHERBEST Variegated Color Roofs usually several shades of one color are used. We properly proportion and mix the various colors selected in the bundle so that the carpenter lays a WEATHERBEST Variegated Color Roof in just the same manner as an ordinary one color roof and without any extra labor. Ask for color photogravures showing homes with WEATHERBEST Variegated Color Roofs.

For Life-Long Roofs and Sidewalls

WEATHERBEST Stained Shingles are used on sidewalls as well as roofs and when applied with zinc-coated nails that do not rust will give 50 years of service on roofs and last as long as the building on sidewalls. The soft, semi-transparent colors add much to the attractiveness of a home as WEATHERBEST stain emphasizes the grain of the shingles just enough so that the flat tone of a painted surface is absent.

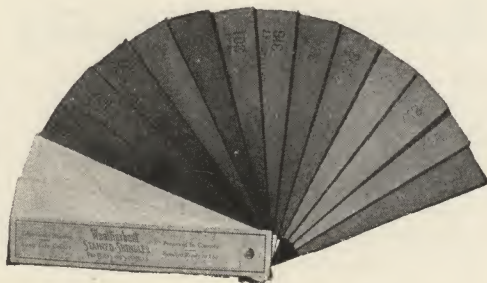
Reliability and Quality

WEATHERBEST Stained Shingles and stain have been on the market for the past sixteen years and can be thoroughly relied upon to give entire satisfaction. Each bundle carries the WEATHERBEST label and is our guarantee of perfect material and lasting colors. Only the finest 100% Edge Grain, all clear Red Cedar is used in the manufacture of WEATHERBEST Stained Shingles. Every shingle is perfect from tip to butt. WEATHERBEST Stain consists of the strongest color pigments obtainable, high grade preservatives and linseed oils—all properly mixed in our factories in the correct proportion to insure lasting, uniform colors. All shingles are unbundled at our factories and treated separately—not bundle dipped as is the case with many other stained shingles. After treatment, the shingles are dried, inspected, rebundled and come ready to lay. No brush coat is required after shingles are laid.

Variety of Weather-Tested Colors

Twenty standard WEATHERBEST colors, any number of color schemes for beautiful variegated color roofs allows an almost unlimited means of carrying out any color idea desired.

A postal will bring this set of color samples which show Weatherbest colors on Red Cedar.



Sizes and Service

WEATHERBEST Stained Shingles are furnished in 12", 16" (regular and "Doubt-Thik"), 18" and 24" (regular and "Doubt-Thik") sizes. Lumber dealers everywhere carry popular colors in stock and quick shipping service is maintained from our factories and warehouses.

Why Weatherbest Always Lie Flat

The prime essentials in stained shingle effects which give permanent satisfaction are (1) even, durable color and (2) freedom from curling and warping. WEATHERBEST Edge-Grain shingles can be counted on for these essentials. The two pictures below explain why WEATHERBEST colors last and the shingles do not curl.

100% Edge-Grain Red Cedar Shingles used in the manufacture of WEATHERBEST. Edge-Grain shingles readily absorb and retain the maximum amount of color. Edge-Grain and the preservative is the reason why WEATHERBEST Stained Shingles lie perfectly flat during their many years of service.



The picture opposite shows poorly manufactured, flat or "slash" grain Red Cedar Shingles. The hard, flint-like surface of the flat grain cannot absorb and hold color. These are the kind of shingles that curl, warp and split after a few years of service.



Weatherbest Genuine Hand-Rived Tapered Shakes

To those desiring the true beauty of the old-time shake we unhesitatingly recommend WEATHERBEST genuine Hand Rived Tapered Red Cedar Shakes. These shakes are manufactured in 25", 31" and 37" lengths. They are of random width and vary in thickness as did those split by the old time settlers. An ideal roof and sidewall covering where "something different" is desired. We have prepared a brochure showing details of WEATHERBEST shake and roof sidewalls as well as pictures of houses covered with WEATHERBEST hand rived shakes. Send for literature descriptive of shakes and request samples.

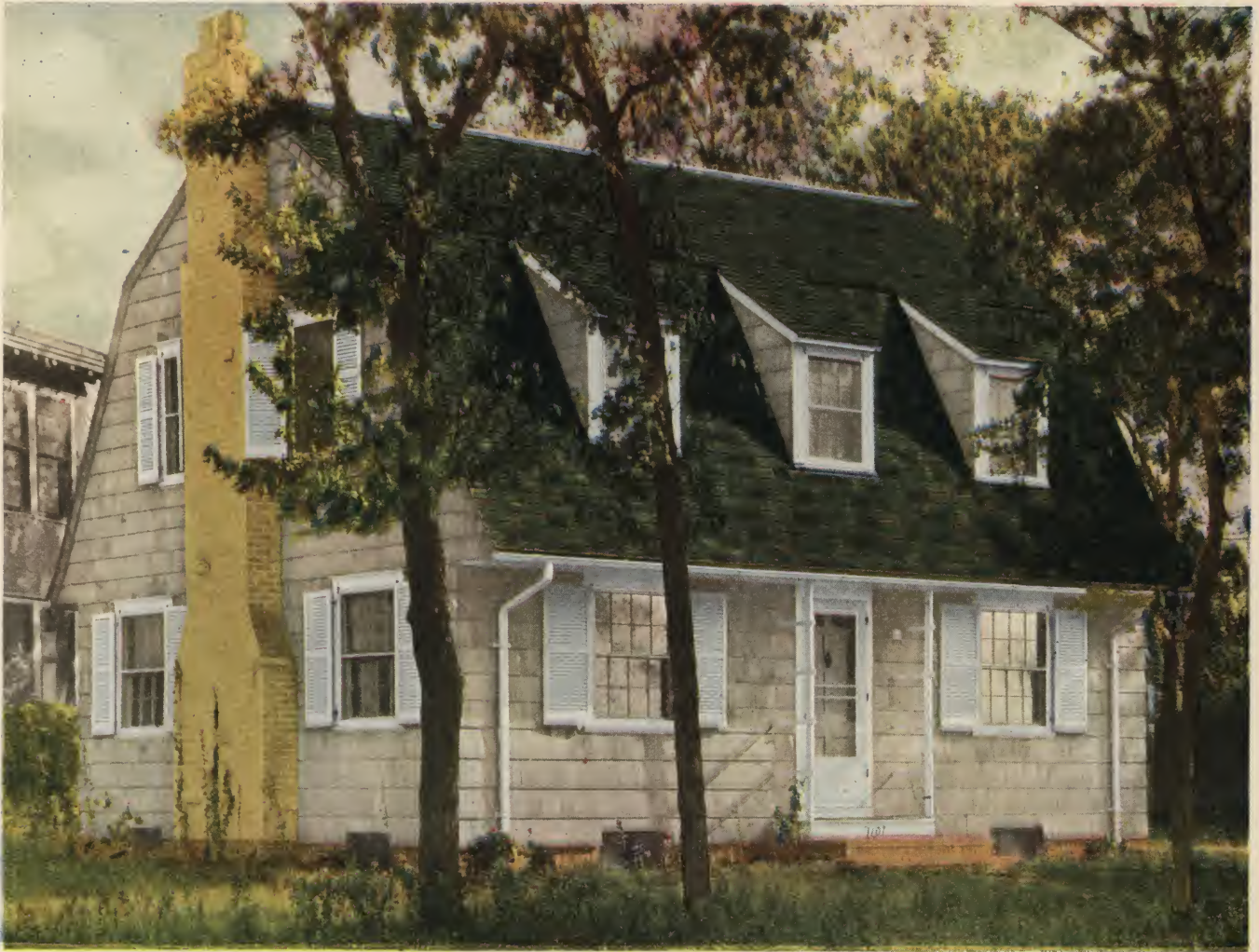


For further details and literature, write to:

WEATHERBEST STAINED SHINGLE CO., Inc.

North Tonawanda,
New York

Weatherbest Stained Shingles—(Continued)



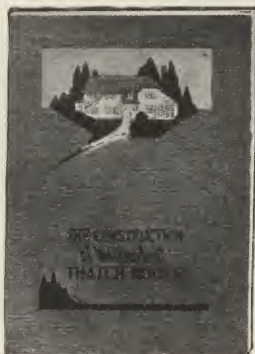
Residence of Professor M. Gaus, Minneapolis, designed by Architects Small House Service Bureau
Roof: 16-in. Weatherbest Stained Shingles in variegated green. Walls: 24-in. Weatherbest in gray.

Send for Color Photogravures

The above picture was selected from a set of WEATHERBEST Color Photogravures. These photos show many WEATHERBEST Stained Shingle homes of different designs in full color. A great help to the home builder in selecting colors for roofs and sidewalls. These photogravures will be gladly sent on request. Just ask for complete set of WEATHERBEST Color Photogravures.

Weatherbest Thatch Roofs

The quaint thatched straw roofs of Old England always possessed a subtle charm but were too short lived for present day demands. WEATHERBEST Thatch Roofs have the soft, rounding curves and charm of those old straw roofs and provide a roof that will last for more than a lifetime. Full instructions for constructing a WEATHERBEST Thatch Roof, color suggestions and full page illustrations are given in the booklet pictured here and sent free on request.



Lay Weatherbest Over the Siding of Old Homes

If you own a home that is "growing old"—WEATHERBEST Stained Shingles right over the old clapboards will work wonders in transforming the old house into one of more modern day design. This method of adding many dollars in resale values to old homes is being done all over the country.

You can re-cover old clap-board siding with WEATHERBEST Stained Shingles at only a very little more than the cost of repainting, and because WEATHERBEST Stained Shingles require only a brush coat of stain once every four to six years to renew their original freshness the color upkeep of WEATHERBEST is much less than a painted sidewall.



Send for this 24-page illustrated book. It's free, and full of remodeling ideas.



For further details and literature, write to:

WEATHERBEST STAINED SHINGLE CO., Inc.

North Tonawanda,
New York

Genuine Bangor Certificate Roofing Slate

Produced Solely by Members of
BANGOR SLATE ASSOCIATION
Bangor, Pa.

BANGOR IDEAL SLATE CO.
COLUMBIA BANGOR SLATE CO.
Sales Agents:
Thos. Ditchett Est., Bangor, Pa.
East Bangor Consolidated Slate Co.

MEMBERS OF THE ASSOCIATION
NORTH BANGOR SLATE CO.
BANGOR WASHINGTON SLATE CO.
OLD BANGOR SLATE CO.
VENDOR SLATE CO.
Easton, Pa.

BANGOR QUARRY CO.
THE AULD & CONGER SLATE CO.
Cleveland, Ohio
BANGOR VEIN SLATE CO.
HOUSTON BROS.
Pittsburg, Pa.

No Home Is
Fire-Safe Without
a Fire-Proof Roof



See Page 1107 for Plans

GENUINE BANGOR SLATE ROOFING and Brick combine to make this delightful home a striking example of economy and permanence.

Nature has given this solid imperishable rock a conservative color that harmonizes with all building materials, and the appearance of every home illustrated in the Home Builders Catalog will be improved by it. Genuine Bangor Slate costs little, if any, more than less durable roofing. The absence of upkeep expense makes a slate roof a lifetime investment in permanent protection.

The slate shown in this panel is purposely laid in irregular fashion with an occasional corner broken to produce a rugged effect. Should standard uniform slates be desired specify No. 1 Clear Grade.

Always insist on the Genuine Bangor label as shown above—the sure sign of slate quality.

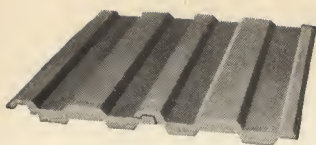
Do Not Experiment—Use Materials With a REPUTATION

A roof of Genuine Bangor Slate affords everlasting satisfaction—it provides double thickness without the necessity of heavier roof framing than provided by law. The roofer who uses Genuine Bangor Certificate Slate is a reliable roofer—We will gladly furnish the name of one near you.



For further details and literature, write to:

BANGOR SLATE ASSOCIATION, Bangor, Pa.



French Tile

Hawthorne

ROOFING TILE

"The Roof that Outlasts the Foundation"

Manufactured by the

HAWTHORNE ROOFING TILE CO.

228 N. La Salle St., Chicago, Illinois



Spanish Tile

Hawthorne Roofing Tile has become a nationally known product. It is now being regularly specified by a large number of architects and used by builders in all parts of the country. From a humble beginning in 1922 to the position of the most popular of permanent roofing materials in 1927 is an achievement which can only be accomplished through the actual merit of the article itself. The qualities responsible for this rapid recognition are as follows:

2. Beauty

Hawthorne Tile is produced in the following fourteen colors:

| | | |
|------------|----------------|--------------|
| Bright Red | Chocolate | Bright Blue |
| Dark Red | Standard Green | Velvet Blue |
| Orange | Dark Green | Purple |
| Yellow | Light Green | Slate Gray |
| Tan | | Natural Gray |

Roofs may be laid in solid colors, or by combining several of the above in pleasing blended effects. Spanish tile in blends of reds, yellows, and chocolate are especially effective. The use of flat tiles in blues and greys produces an exceptionally pleasing subdued appearance which harmonizes with old stone effects and English types.

3. Insulation

The method of laying Hawthorne Tile does away with the necessity of using any other insulation material. An air space is provided under the tile that retains heat in Winter and excludes heat in Summer.

4. Utility

Hawthorne Tile meets every roofing requirement. Laboratory tests show it to be waterproof and practically non-absorbent. It is absolutely fireproof.

5. Economy

The additional cost of a Hawthorne Tile Roof is returned to the purchaser in the following manner:

1. Reroofing and repair bills are eliminated.
2. The Insulation feature saves in house construction and fuel bills.
3. The improved appearance and utility adds to the selling value.
4. A larger loan can be obtained.



Residence—Evanston, Ill.
G. W. Wegener, Designer and Builder

1. Permanence

We use the slogan—"The Roof That Outlasts the Foundation" because Hawthorne Tile is made of a finer and better concrete than that used for ordinary construction. A fine aggregate is molded by automatic power-driven machinery into tiles of absolutely uniform weight and size. The curing process is allowed to go forward until the right degree of hardness is reached at which any possible defective tiles will be thrown out in rehandling and only first grade tiles placed on the roof (we sell no "seconds"). After the tile is applied, *seventeen years* pass before it reaches its *maximum strength*.

As the result of constant experimental work we have succeeded in obtaining a permanent color coat. The very highest grade of pure metallic oxides (the only permanent coloring material) are impregnated into the top surface of the tile when it is molded. This patented process of applying the color coat produces a surface which will not fade, wear off, nor absorb dirt. Hawthorne Tile is used in every part of the country and stands the test of climate from coast to coast.

The lasting quality of concrete and pure metallic oxide colors is behind our fifteen year guarantee.



Residence—Park Ridge, Ill.
G. W. Repp, Architect



Street of Hawthorne Roofed Homes—Evanston, Ill.—W. F. Blades, Designer and Builder



For further details and literature, write to:

HAWTHORNE ROOFING TILE CO.

228 N. La Salle St.
Chicago, Ill.

Imperial Vitreous Shale Roofing Tiles

SALES OFFICES:
NEW YORK—
 565 Fifth Ave.
WASHINGTON—
 738 15th St. N. W.
PHILADELPHIA—
 1315 Walnut St.
PITTSBURGH—
 355 Fifth Ave.

Made by
Ludowici-Celadon Company

GENERAL OFFICES:
 104 S. Michigan Ave., Chicago, Ill.
Factories: New Lexington, Ohio; Peru, Kansas;
 Coffeyville, Kansas

SALES OFFICES:
CLEVELAND—
 1836 Euclid Ave.
CINCINNATI—
 Schmidt Bldg.
ST. LOUIS—
 317 No. 11th St.
KANSAS CITY—
 10th and Baltimore St.

Product:

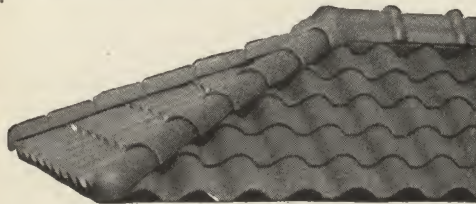
This company manufactures "Imperial" Shale Roofing Tiles—a very high grade product made from the best of raw material and with the most modern machinery, every detail being carefully supervised by skilled artisans.

Attractiveness:

A roof of Imperial Shale Tiles can be constructed to harmonize with any type of dwelling. Their rich, warm colorings and pleasing play of lights and shadows add to the beauty of any home. No other type of roofing can truthfully imitate the variegated color effects that hard-burned tiles alone yield permanently.

Many Shapes, Shades and Textures:

In addition to the four standard shapes shown below, there is an almost unlimited variety of shapes, shades and textures that readily lend themselves to distinctive roofing effects.



Imperial Spanish Tiles: Are particularly adapted to those styles of architecture that add so much to the picturesqueness of Southern Europe, from the massive buildings of classical form to the small bungalows where romantic or unusual effects are sought. Tiles are formed with a lip-and-lap lock that provides positive protection from the weather. Length $13\frac{1}{4}$ inches; Width $9\frac{3}{4}$ inches; average exposure $8\frac{1}{4} \times 10\frac{1}{4}$ inches; average pieces per square 171; actual weight per square 950 pounds; shipping weight per square, with fittings, 1050 pounds.



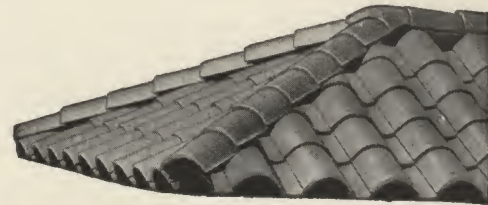
Imperial Closed Shingle Tiles: A pattern widely used to carry out the idea of Colonial or Early English architecture. Has a tongue-and-groove lock and is far superior in actual strength to the ordinary flat shingle. In depth of reveal it accentuates the horizontal line, avoiding the monotonous effect of other flat roofing material. Length 11 inches; width $8\frac{3}{4}$ inches; average exposure 8×8 inches; average pieces per square 225; actual weight per square 900 pounds; shipping weight per square, with fittings, 1000 pounds.

No heavier under-construction necessary. Tile roofing does not require much heavier underconstruction than other roofing materials—2x6-inch wood rafters, such as are used for ordinary residence construction, have sufficient strength to support tile roofing when spaced not more than 16 inches on centers.

Advantages of Imperial Tile Roofing:

The first cost is its *only* cost. No paint or stain is needed to retain its original beauty. Examples of their everlasting quality is seen on every hand. European cities abound with structures protected for centuries by their roofs of ancient

tiles. Sun, wind, rain or climatic changes have no effect on their wearing qualities or coloring. If properly applied they never require replacement or repairs. They are absolutely weather-proof and non-conductive—making the house warmer in winter, cooler in summer and so strictly fireproof that insurance companies allow a reduction in rates on structures covered by them.



Imperial Straight Barrel Mission Tiles: Are recommended for use where a rough and polychromatic effect is desired. Obtainable in an almost unlimited range of colors and shades, it is possible to tone a roof to harmonize ideally with the building it covers and the surroundings. Can be laid either random or regular exposure. Average exposure in length, $11\frac{1}{4}$ inches; width, center to center of covers, $11\frac{1}{2}$ inches; average pieces per square 224; actual weight per square 1200 pounds; shipping weight per square, with fittings, 1300 pounds.



Imperial French Tiles: An "all-around" tile that may be used with almost any type of house. Has a tongue-and-groove lock. While the general effect is flat, the convolutions in the surface afford considerable play of light and shadow. Length $16\frac{1}{4}$ inches; width 9 inches; average exposure $8\frac{1}{2} \times 13\frac{3}{8}$ inches; average pieces per square 133; actual weight per square 925 pounds; shipping weight per square with fittings, 1025 pounds.



For further details and literature, write to:

LUDOWICI-CELADON COMPANY, CHICAGO, ILL.

Metal Spanish Tile

Made by

THE EDWARDS MANUFACTURING CO.

412-462 Eggleston Ave.

CINCINNATI

NEW YORK

DALLAS, TEXAS

An "EDWARDS"

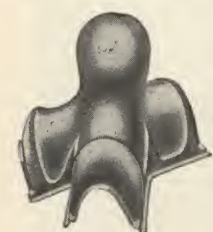
Metal Spanish Tile Roof

Beautiful—Durable—Economical

affords a remarkable transformation when applied to a house—all of the charm of the old Spanish Terra Cotta Roofing Tile is preserved, even to the color.

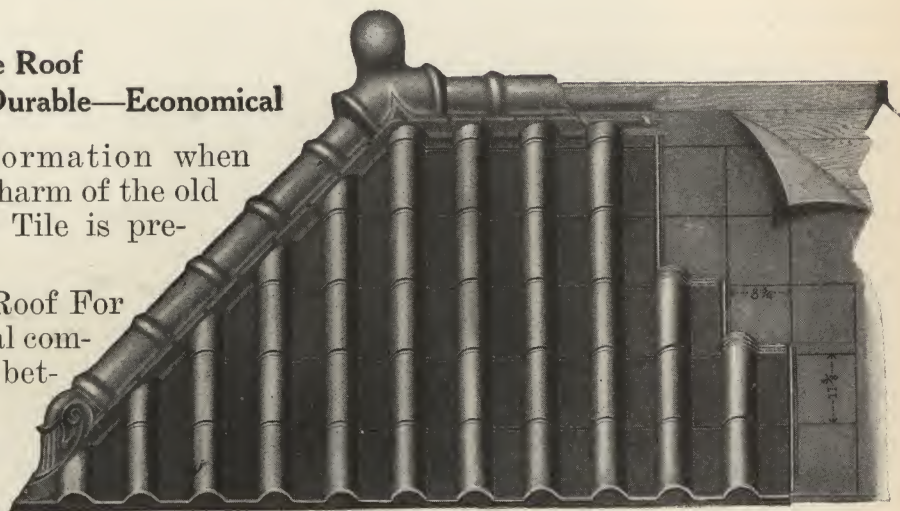
An Edwards Metal or Tile Roof For Every Type of building, is a real commercial asset and will bring a better return in rent or sale.

Edwards Metal Roofings made to have the appearance of wood shingles, tile, slate, or any other roofing effect, and none of these fine artistic effects will cost any more than a plain, commonplace roof.

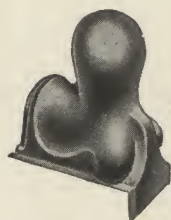


All Edwards Metal Roofing is easy to lay—no big expense for skilled labor—storms and winds will not wrench it loose. It is lightning-proof and fire-proof—Reduces Insurance Rates.

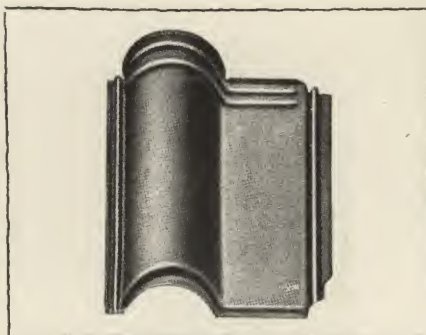
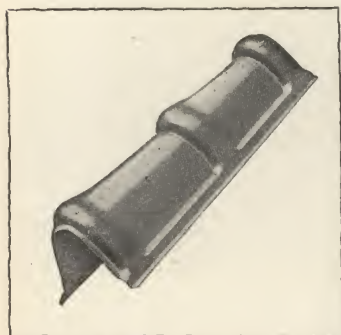
The Edwards Manufacturing Company, rolling its sheets in its own mills, doing its own stamping and carrying the work from the raw material to the finished product, has developed the artistic Metal Spanish Tile to the highest point ever reached. To you this means that Edwards products afford a wider choice of designs, more complete and better all-round service and lower cost, made possible by modern equipment and a



vast production. Because of our centrally located main plant and the two branches in the East and Great Southwest, we are prepared to offer you exceptionally quick and certain deliveries with a material saving in shipping costs. Spanish Tile shipped unpainted or painted either green or red.



We also make Metal Shingles of Copper, Zinc, Galvanized Steel or Tin. Also made Cornices, Plain, Corrugated and Galvanized Sheets; Barn Roofings, Filling Stations, Fire-Proof Doors and Shutters, Gutters and Conductor Pipes and Fittings, Garages, Metal Ceilings, Keyridge Lath for Partitions, Metal Awnings, Marquise, Portable Buildings, Tin Clad and Kalamein Doors, Sheet Metal Stampings, Siding, Skylights, Theatre and Store Fronts, Ventilators and Zinc Ornaments.



For further details and literature, write to:

THE EDWARDS MANUFACTURING CO.

412-462 Eggleston Ave.
Cincinnati, Ohio

MILCOR

SPANISH METAL TILE ROOFING



"KUEHNCREST"
on Lake Curtis, Gogebic County, Northern peninsula of Michigan. Louis Kuehn, owner; Robt. Messmer & Bro., Arch., Milwaukee. Milcor Spanish Metal Tile Roof, painted.

MILCOR

Products are made in Steel, "Coppered Metal", Zinc, Copper, or the famous rust-resisting



Ingot Iron



Colorful Roofs in Metal!

ALL the charm of a costly burnt clay tile roof—but it is metal! So you must add many other advantages to the unsurpassed beauty of this roof: It is firesafe, storm-tight, lightning proof, cannot be cracked or chipped by frost; it is light in weight and economical. No other type of roofing can be so completely satisfactory and safe!



Above is a complete view of KUEHNCREST. At the right is shown the garage, ice house and caretaker's lodge, roofed also with Milcor Spanish Metal Tile.



Weighing only one-eighth as much as clay tile, and therefore requiring only a light supporting structure, Milcor Spanish Metal Tile gains a substantial saving in time, labor and materials. Easily finished in any color scheme desired—although regularly furnished painted red or green, or galvanized, or in pure copper. The copper tile are everlasting and take on a beautiful oxidized copper-green shade.

Ideal for all types of residences and for the visible portions of roofs of apartment buildings, hotels, churches, theatres, hospitals, schools, libraries and other public buildings, railway stations, garages, filling stations, etc. Thousands of Filling Stations are roofed with Milcor Spanish Metal Tile.



For further details and literature, write to:

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.

HOME BUILDERS CATALOG

LEADCLAD ROOFING AND SPOUTING

Made by
WHEELING METAL & MANUFACTURING CO.
Wheeling, W. Va.

LEADCLAD
REG. U.S. PAT. OFFICE 1923



Leadclad Spanish Tiles
Most beautiful of all roofings. Furnished in Red or Green. Fire and lightning proof. Practically everlasting. Light, strong, unbreakable.



Leadclad Metal Shingles or Slates. Furnished plain and in several attractive patterns. Leadclad surface weathers to a slate gray. Unbreakable, fire and lightning proof.



Leadclad Eavestroughs and downspouts. Also flashings, valleys and other sheet metal work. Resists corrosion for a lifetime or longer.

Leadclad Products. Spanish (metal) tiles, in red or green. Metal Shingles, in different patterns; V-Crimp Roofing Sheets; Roll Roofing, (for "Standing Seam" and "Flat Seam" roofs, porch decks, etc.) Also Gutters, Downspouts, Flashings, Ridge Rolls, and other sheet metal specialties.

Leadclad Durability. The "Leadclad" process is an improvement on solid lead, which for centuries has been the most favored roofing material where the most rust-resisting and enduring material is desired. Solid lead, however, is expensive and heavy, and is lacking in physical strength. Leadclad therefore, consists of a jacket of lead fused on to a base of strong copper-bearing steel. Leadclad products, in actual service, have repeatedly proven equal or superior to copper in rust resistance, yet are available at a much lower price (about one-third). "Leadclad" should not be confused with ordinary lead-coated products, as the "Leadclad" process is a secret one, developed and used exclusively by the makers of this product, and the only process which successfully eliminates possibility of pinholes and other imperfections which are common to tin, zinc, and lead-coated products. Leadclad does not have to be painted to keep it from rusting. The heavy lead jacket gives permanent protection against the elements.

Fire and Lightning Protection. Only an all-metal roof, such as is available in Leadclad Spanish Tiles, Shingles, "Standing" or "Flat Seam" sheets, is permanently fire proof and lightning proof. No lightning rods are needed, for a Leadclad roof carries lightning off harmlessly when the downspouts are properly grounded. The tiles and shingles fit snugly on top and bottom, and are locked securely together at the sides, leaving no unprotected cracks where sparks or flames can attack the wood sub-structure.

Beauty. Leadclad Spanish Tiles are formed exactly like true earthen tile, and cannot be distinguished from the latter when laid on the roof. So-called Spanish Tiles are suitable not only for buildings of Spanish architecture, for their use is common throughout the old world, notably in France, Italy, Belgium, Holland, Germany, and the Scandinavian countries, for buildings of every style and type. No other roof can equal the red or green Spanish Tile roof in beauty and charm.

Leadclad Shingles make a roof which is equal in good looks to heavy and expensive slate. Unlike the latter, the strength of Leadclad does not deteriorate from heat and exposure. When left unpainted, it weathers to a natural slate gray, hard to distinguish from real slate. These slates or shingles are made plain and in a number of different patterns. (Catalog on request.)

Strength. Leadclad shingles, tiles and flat roofings, unlike slate, tile, wood, and different composition shingles, are not subject to cracking or breakage. They will not curl up, chip, or come loose. Hence they are best insurance against leaks. No nail holes are exposed to the weather. They are practically everlasting.

Sheet Metal Work. Leadclad flashings, valleys, gutters and downspouts are recommended wherever the most durable, weather-resisting and rust-proof material is desired. Will usually give service equal or superior to that of copper, at only a fraction of the cost.

Catalog upon request.

"A Leadclad Roof is Lightning Proof."



For further details and literature, write to:

WHEELING METAL & MFG. CO., Dept. H. B., Wheeling, W. Va.

ETERNIT ASBESTOS SHINGLES

Manufactured by

ETERNIT, INC.

Main Office: Lewis Bldg., 15th and Locust Streets, Philadelphia, Pa.

Branch Offices and Warehouses: Boston, Jacksonville, New Orleans, Houston, St. Louis

Factory at St. Louis, Mo.

Products

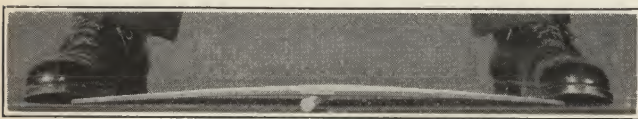
Eternit Asbestos Shingles—An absolutely fireproof and colorfast roofing shingle that is practically indestructible. Made of Portland Cement and asbestos fibre. Adaptable to and most practical for the finest residences, barns, garages, farm buildings, or any structure with a sloping roof.

Eternit Asbestos Lumber is made of the same materials as the shingles but furnished in large sheets. For either interior or exterior fireproof construction, particularly for siding, partitions, etc.

Asbestos Corrugated Roofing and Siding is made of the same materials and by the same process. Particularly adapted to industrial roofing because it is impervious to acid fumes and absolutely fireproof. It is easily and economically applied. The new "Big Seven" line is a distinct improvement over anything of the kind made.

Materials and Construction

Eternit Asbestos Shingles are built-up layer by layer—not cast or moulded. Choicest Portland Cement and the best asbestos fibre are used. The fibres are interwoven in the cement and then subjected to tremendous hydraulic pressure. Eternits are much stronger and more resilient than the ordinary moulded shingles.



Try this bending test. Lay an Eternit over a pencil and step on opposite edges of the shingle. Then try it on any other shingle. Yet Eternits will not curl or twist under any circumstance when on the roof.



Invert a glass of water on an Eternit. This test shows another advantage of the special Eternit construction which permits of an even distribution of asbestos fibres in each layer. Eternits are thus made moisture-proof. The water in the glass will not seep through the shingle.

Eternit

Reg. U. S. Pat. Off.

ASBESTOS SHINGLES

Absolutely Colorfast

Advantages

Eternit Asbestos Shingles are proof against all weather conditions. Once on a roof, they are on to stay. Properly applied there is no further upkeep. They add to the attractiveness of any building. Sparks from chimneys or flaming embers from fires next door cannot harm the house where Eternits are on guard. Frost cannot crack Eternits or blazing sun warp them. The insulating quality of asbestos is a barrier against both heat and cold.

They are very rigid. The strongest wind can't lift them.

Colors

For the first time in the history of asbestos shingles here are colors that will not "bloom" or fade. An exclusive new Eternit process makes the colors as permanent as Eternits themselves. There is just the right color for your building.

Colonial Gray—a bright and cheerful tone always in good taste and very popular.

Indian Red—a soft, rich shade that harmonizes with almost any color scheme.

Quarry Blue—giving the subdued, dignified appearance of natural slate.

Autumn Bronze—a new brown that gives what is probably the most beautiful roofing effect achieved.

Emerald Green—a handsome and popular color that's as fresh as the woods in spring.

Heather-blend—as beautiful as fine tapestry.



Eternit Horizontal Method

Eternit Horizontal Method

An exclusive Eternit development. The most beautiful of all methods of laying shingles. Architects are enthusiastic about the deep shadow lines obtained.



For further details and literature, write to:

ETERNIT, INC.

15th and Locust Streets
Philadelphia, Pa.

ETERNIT ASBESTOS SHINGLES (Continued)

Builders are showing a decided preference for this style. Best of all it costs about the same as the Eternit Hexagonal Method (shown on this page) which up to now has been the prevailing style. The Horizontals are quickly and easily applied.



American Method with Eternit

American Method With Eternits

The American or vertical method is at its best when Eternits are used. It is laid just like slate. The cost, however, is a great deal less. Furthermore few other shingles and certainly no other asbestos shingle can be handled with as little breakage as Eternits. The Value Holding Corporation, builders and realtors of Jamacia, L. I., in commenting on this fact, write: "In a check-up of 24 roofs on which we used Eternits, we have discovered and replaced just one broken shingle. In our estimation this is quite a record."



Eternit Hexagonal Method

Eternit Hexagonal Method

This is also called the French method and until the introduction of the Eternit Horizontal method was by far the most economical style in use. It will continue to enjoy quite a vogue because of the interesting pattern it achieves. And for re-roofing it remains the most practical style on the market. Hexagonal shingles cover more area than the other types—important in shingling right over warped or twisted wood or asphalt shingles.

For New Roofs or Old

This is the age of asbestos shingles. Eternits by their very excellence are forging into the lead. Home owners, building contractors, roofers, are enthusiastic about their appearance, economy and permanence.

A home that's shingled in the first place with Eternits is fortunate indeed—as hundreds of thousands of homes know. But ailing roofs are now easily and quickly made hearty and hale. Right over old wood or asphalt shingles, Eternits go. Eliminating rubbish and litter. Saving time and labor. Providing a roof of double thickness and one that will outlast the building itself.

Right Over the Old Shingles

The Royal Poinciana Hotel, Palm Beach, Fla., illustrated below, illustrates the value of re-roofing with Eternits. This is one of the largest roofs in the world. It was re-roofed right over the old shingles with over 2,000 squares or 15 carloads of Eternits. The devas-



Right Over the Old Roof

tating Florida hurricanes of a few seasons back did no damage whatever to this Eternit roof.

Royal Poinciana Hotel, Palm Beach

Roofers save time with Eternits. They are easily handled, hard to break. They are tougher, stronger, more resilient than other makes. They can be filled



Hotel Royal Poinciana, Palm Beach

with nail holes without breaking; though they come to the job ready punched. These are important points for the home owner and the building contractor. They mean a saving in application costs. For full particulars, samples and roofing directions mail a post-card today.



For further details and literature, write to:

ETERNIT, INC.

15th and Locust Streets
Philadelphia, Pa.

MOHAWK TAPERED ASBESTOS SHINGLES

Manufactured by

MOHAWK ASBESTOS SLATE CO., Inc.

Office: Utica, N. Y.

Factory: Oneida, N. Y.

SALES OFFICES

NEW YORK, N. Y., 120 East 41st Street
PHILADELPHIA, PA., 630 Real Estate Trust Building

PITTSBURGH, PA., 40 Royal Street, N. S.
CLEVELAND, OHIO, Builders Exchange, Rose Bldg.
CHICAGO, ILL., 6522 North Ashland Avenue.

Products

Tapered Asbestos Shingles

Mohawk Tapered Asbestos Shingles

Made in thicknesses of $\frac{3}{8}$, $\frac{5}{8}$ and $\frac{7}{8}$ in. at butt. Standard size, 8x16 in. Random widths, 4, 8, 12 and 16 in. Seven color tones, gray, dark gray, browns, purples, buffs, reds, and black.

Plain butt and Rustic Colonial type (rough butt).



The exceptional beauty of a Mohawk roof lies in the distinctive characteristics and architectural qualities of the Mohawk Shingle. Their taper produces a thick butt that casts a pleasing shadow line. Rough texture and mottled surface afford soft shades that blend beautifully into a colorful and picturesque effect that enhances the charm of the home or building on which they are used.

The hand hewn butts of the Rustic Colonial type lend a weatherworn appearance, as if aged by the very elements, and a tapestry effect. Graduated effects in random widths to express individuality and maintain the character of the structure in the roof are possible with the three thicknesses of shingle and the random widths. Color blends that harmonize or contrast with the exterior can be adapted.

The service of a Mohawk roof is everlasting. Composed of portland cement and selected asbestos fibers and moulded under heavy pressure, they are impervious to all climatic conditions and absolutely fireproof. Will not crack or exfoliate from natural causes, but rather harden and strengthen with age. Their resiliency takes care of any slight contraction or expansion on the roof. They have a considerable insulation value and help to keep a more even temperature in the interior.

The Mohawk Shingle has the advantage of being comparatively light in weight. The $\frac{3}{8}$ -in. thickness weighs approximately 650 lbs. per square, the $\frac{5}{8}$ -in., 800 lbs. per square and the $\frac{7}{8}$ -in., 1300 lbs. per square.

MOHAWK

TAPERED

ASBESTOS SHINGLES

Mohawk Asbestos Hip and Ridge Roll

Made of same materials as the shingles, and in same colors; sections 16 in. long. Ninety-three sections of ridge roll cover 100 lin. ft. of ridge or hip.

Mohawk Asbestos Saddle Hip Tile—for Hips Only

Made of same materials as shingles and in same colors. Exposed $4\frac{1}{2}$ in., meet and break joints on each shingle course.

Approximately, 3 pieces required for each lineal foot.

Shingle Specifications

All roof surfaces shall be covered with Mohawk Tapered Asbestos Shingles (specify thickness and type), as manufactured by the MOHAWK ASBESTOS SLATE CO., INC., of Utica, New York.

Note: In Carpenter's Specification specify that roof boards shall be laid in the usual manner, breaking joints and nailing securely at every bearing, leaving no loose ends. All roof sheathing shall be of narrow width and well seasoned.

Over all roof sheathing lay one thickness of good quality slater's felt as furnished by the MOHAWK ASBESTOS SLATE CO., INC., making laps not less than 4 in., except on hips and valleys, where laps must be not less than 10 in.

At edge of eaves provide cant strips, using $\frac{3}{8}$ -in. thick laths for this purpose.

The starting course at eaves shall be Mohawk Tapered Asbestos Shingles, cut 11 in. from butt as starters, laid parallel with and overhanging the eaves $1\frac{1}{2}$ in.

The second course shall be standard size (random widths) Mohawk Tapered Asbestos Shingles, covering the first course and breaking joints with it.

Proceed with laying the shingles in precisely the same manner as with natural slate, exposing the asbestos shingles 7 in. (except where staggered effect is desired, specify "staggered") to the weather except that the Mohawk Shingles having beveled edges should be laid close together instead of separated as with natural slate.

All nails shall be galvanized needle point or copper roofing nails ($1\frac{1}{4}$ in. for $\frac{3}{8}$ -in., $1\frac{1}{2}$ -in. for $\frac{5}{8}$ -in., or 2-in. for $\frac{7}{8}$ -in. shingles) as furnished by the MOHAWK ASBESTOS SLATE CO., INC. The nails shall be driven flush with the asbestos shingle surface, but not down too tight.

For all hips and ridges provide Asbestos Ridge Rolls, or saddle hip tile for hips only, manufactured by the MOHAWK ASBESTOS SLATE CO., INC.



For further details and literature, write to:

MOHAWK ASBESTOS SLATE CO., Inc., Utica, N. Y.

The Peerless Asphalt Shingle

(Trade Mark Registered)

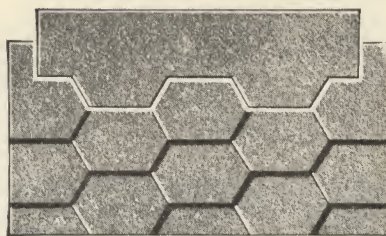
PRODUCT OF

THE WEAVER-WALL COMPANY

Manufacturers of

ASPHALT SHINGLES and ROOFINGS

Cleveland



"LOOKS WELL-WEARS BETTER"

Color

That makes it beautiful. Our Green, Red and Blue-Black finishes are standard wherever roofs are laid; our Color Blends have been developed to an exceptional degree of beauty, and provide a wide range adaptable to any color scheme or architecture.

Quality

That makes it wear. Peerless Shingles are made of materials which have proved their superiority through years of satisfactory service. Our asphalt, felt and surface minerals are the most enduring of their kind; if better materials were available we would use them.

Design

That makes it adaptable. The head-lap is $3\frac{3}{4}$ inches, giving a full double-thickness roof. The $3\frac{1}{2}$ inch tab (the shortest hexagon made) produces a shadow line found in no other shingle, and, of course, makes for extra strength and rigidity.

Workmanship

That makes it right. The superiority of Weaver-Wall workmanship is recognized everywhere and is the result, not only of modern equipment and good mechanics, but also the earnest desire to create the best.—
Look at the surface!



For further details and literature, write to:

THE WEAVER-WALL COMPANY

Brookpark & State Roads
Cleveland, Ohio



ASPHALT SHINGLES

Made by

AMALGAMATED ROOFING CO.

Executive Offices: 431 South Dearborn St., Chicago

Factories at Clearing, Illinois

Products

NU-TILE Asphalt Shingles and Roofing are designed to fulfill the desire of the ultimate purchaser which is the home owner. It is with this thought in mind that we combine the best of raw materials to accomplish this purpose.

Our process of manufacture which consists of thoroughly waterproofing a long fibre felt with a wax like saturating asphalt which is then sealed both top and bottom with a coating of special blended asphalt eliminates all possibility of moisture passing through the material and prevents the shingles from drying out and curling.

NU-TILE Asphalt Shingles and Roofing are then coated with granules of natural colors which are rolled into the asphalt coating while hot; this forms a protection against fire and furnishes the many beautiful colors which is desired to improve the appearance of this building.

NU-TILE Means Best Roofing Value

There is no handsomer roof than one made of **NU-TILE** Asphalt Shingles. It has a permanent and beautiful coloring, due to the fact that no artificial coloring is used but only such tints as Mother Nature provides from her inexhaustible storehouse of minerals. The Red, Green, Blue-Black, White and Golden Buff of **NU-TILE** Asphalt Shingles, and the Sea Green, Tile Red Blend, Golden Buff, Purple-Bronze and Violet of **NU-TILE** Tapestry Blend Shingles are obtained without the use of dyes or chemicals of any kind, by using selected rocks, gravel and vitrified tile and porcelain which give the colors desired, either when used singly or in combination with materials of a different color.

Made in Several Forms and Various Colors

NU-TILE Asphalt Shingles are made in the following forms and colors:

Extra Heavy—10 2/3x14"—Individuals. Colors: Red, Green and Blue-Black. Laid 5" to weather. Weight 290 lbs. per square.

Standard—8x12 1/2"—Individuals. Colors: Red, Green, Blue-Black and White. Weight about 240 lbs. per square.

4-in-1—10" Shingles. Colors: Red, Green, Blue-Black, White and Golden Buff and Tapestry Blends. Weight about 190 lbs. per square.

4-in-1—12 1/2" Shingles. Colors: Red, Green, Blue-Black, White and Golden Buff and Tapestry Blends. Weight about 240 lbs. per square.

3-in-1—Extra Heavy. Colors: Red, Green, Blue-Black and Golden Buff and Tapestry Blends. Weight about 255 lbs. per square.

2-in-1—10" Hexagon Shingles. Colors: Red, Green, Blue, Black, White, Golden Buff and Tapestry Blends. Weight about 176 lbs. per square.

2-in-1—12 3/4" Hexagon Shingles. Colors: Red, Green, Blue, Black, White, Golden Buff and Tapestry Blends. Weight about 210 lbs. per square.

2-in-1—12 3/4" Extra Heavy Hexagon Shingles. Colors: Red, Green, Blue, Black, White, Golden Buff and Tapestry Blends. Weight about 270 lbs. per square.

IN-LADE Roll Roofing

We make a great variety of other styles of Asphalt Roofing, including IN-LADE Roll Roofing in Square Shingle, Cut Shingle and Reversible Designs; Arc Brand Roofing in Sno-Tile (White Roofing) Golden Buff, Red, Green and Blue-Black; Amco Rubberlike Roofing (smooth finish); and other brands. Write for our complete listing of roofing materials.

NU-TILE TAPESTRY BLEND SHINGLES The Durable Roof Beautiful

NU-TILE Tapestry Blend Shingles (illustrated on opposite page) are the last word in artistic roof coverings.

After years of intensive research and experiment, we are now producing not only wonderfully artistic effects, but, as a result of exhaustive tests, a wearing quality unequalled anywhere. Through actual use on the roof, we have demonstrated emphatically the *durability and beauty* of our **NU-TILE** Tapestry Shingle. Scientifically treated granules, carefully weighed and blended before being spread upon the mastic with which we surface our shingles, create that *artistic and permanent effect* so keenly appreciated by home builders.

All the mineral grits used by us in producing our vari-colored effects have been tested for many years by actual exposure on roofs. It is this superiority in texture, both as to durability in wear and permanence in colors that has given our Asphalt Shingles their tremendous popularity. While very good roof results may be secured through the use of the combinations of fixed design, it has been found that the most artistic effects are to be obtained through the avoidance of any definite plan or pattern in putting on our shingles.

Samples on Request

You will never appreciate the full beauty of **NU-TILE** Asphalt Shingles, or **NU-TILE** Tapestry Shingles until you have seen them with your own eyes. Let us know what particular type of shingle you are interested in and we will gladly send samples.



For further details and literature, write to:

AMALGAMATED ROOFING CO.

431 South Dearborn St.
Chicago, Illinois

HOME BUILDERS CATALOG

The Aristocrat of Roofs

Embodied in the **NU-TILE** Tapestry Blend Shingle is every qualification that represents roof perfection. Dignity and distinction of appearance are obtained from the artistic blending of the most appealing, delicate, pastel shades of naturally colored stones.

These again can be combined in application to form color combinations to suit exactly the taste of any home owner. So perfectly are these shingles made that they provide weather protection in such definite, generous form that practically life-long service is not too much to expect.



THERE is woven into the oriental rug or bit of old tapestry an individuality that can be obtained from no other source. The same impression of artistic richness has been built into the Nu-tile Tapestry Blend Shingle. This roof imparts to the building it covers the same impression of dignified lasting beauty.



THERE is a definite pride of possession enjoyed by the owner of a rare old tapestry — an oriental rug — or a Nu-tile Tapestry Blend Roof.

The Ideal Combination—Rugged Strength and Remarkable Beauty

No one is going to extract from a sheet of roofing any more value than the manufacturer builds into it. By combining the utmost in strength and beauty into the **NU-TILE** Tapestry Blend Shingle the Amalgamated Roofing Company insures complete satisfaction to every home owner purchasing and applying this material. For over a quarter of a century Amalgamated Roofings have been increasing both the appearance and value of property in all sections of the country.

Write today for samples and literature.



For further details and literature, write to:

AMALGAMATED ROOFING CO.

431 South Dearborn St.
Chicago, Illinois

BEAVER VULCANITE ROOFING

ASPHALT SHINGLES, ROLL ROOFINGS AND OTHER ROOFING PRODUCTS



Manufactured by

THE BEAVER PRODUCTS COMPANY, Inc.

Thorold, Ont.

BUFFALO, N. Y.

London, Eng.



SALES OFFICES:

Atlanta, Ga.
1303 Candler Bldg.

Kansas City, Mo.
12th St. and Crystal Ave.

Chicago, Ill.
2246 W. 49th St.

New York, N. Y.
110 E. 42nd St.

Minneapolis, Minn.
415 Lumber Exchange

For Other Products See Pages:

Plaster Wall Board (107)

Fibre Wall Board (106)

Plasters (81)

Insulating Board (86)

Products

Beaver Vulcanite Mineral Surfaced Shingles—The Original Hexagon Slab Shingle; the Special Self Spacing Individual Shingle. Both furnished in standard colors, red, green, and blue-black and the 4 beautiful color blends. The Doubletite Slab Shingle; the Square Butt Strip Shingle; the Twin-Lok Strip Shingle; all furnished in standard colors only, red, green and blue-black.

Beaver Asbestos Shingles in standard colors, red, gray and blue-black.

Beaver Vulcanite Roll Roofings—smooth surfaced; mineral surfaced, plain and mosaic.

Asphalt Paints and Cements.

Beaver Vulcanite offers a complete line of roof materials to meet every requirement of beauty, protection and cost. For over 20 years Vulcanite has been the standard for asphalt roofing quality. It is known as the pioneer in the development of scientifically designed mineral surfaced shingles. Distinctive beauty of design and coloring, their record for unusual durability, quick automatic spacing, and all round economy make their use ideal on the finest of homes.

The Original Hexagon Slab Shingles



The original Hexagon Slab Shingle is particularly adapted to new work or re-roofing. Its correctly proportioned pattern, beautiful colorings, give a

superior effect on any type of home. Its width is three times its weather exposure—the requirement of perfect roof protection. Its wide overlap, extra thickness, locking end joint and the double thickness roof it builds at every point assures extra protection and longer life.

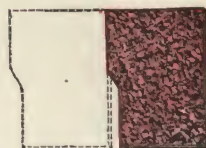
Specifications: 36" long x 12 2/3" wide, to lay 4" to the weather. Two weights: Standard—approximately 210 lbs. to the square, packed two bundles of 50 shingles each, surfaced in red, green, blue-black crushed minerals and the 4 beautiful color blends. Jumbo—approximately 270 lbs. to the square, packed in 3 bundles of 33 shingles each, surfaced in any of the above colors.

36" long x 10" wide, to lay 4" to the weather. Standard weight only—approximately 160 lbs. to the square, packed in two bundles of 50 shingles each. Surfaced in red, green, blue-black and autumn blend crushed minerals.



Self Spacing Individual Shingles

There is all the difference in the world between this shingle and any other individual shingle made. The patented shoulder first results in rapid laying and plus the extra depth, builds a double-thick, completely sealed roof. Made in two sizes; standard 8 1/2" x 12 1/2" and jumbo 11" x 15". The standard weighs 240 lbs. and packed 4 bundles to the square. Jumbo weighs 325 lbs. and packed 4 bundles to the square. Surfaced in red, green and blue-black



crushed minerals and also in the 4 beautiful color blends.

Beautiful New Color Blends

Marvelous color effects for your selection are now obtainable in shingles, famous for economy and protection. The new Beaver Vulcanite Blended Roofs are free from the usual spotty color effects. These soft blended tones were developed after considerable experiments and research to blend artistically and to assure a distinctively beautiful roof for every type of home. There are four blends manufactured in both the original Hexagon Slab Shingles and the Self-Spacing Individual Shingles. There is the Tawny Blend of predominating tans; the Verdant Blend of predominating greens; the Garnet Blend with predominating reds, and finally the Autumn Blend in which skillful blending autumnal colors has been secured.

Smooth and Mineral Surfaced Rolls

Beaver Vulcanite Roll Roofings are made in a variety of styles, designs and weights to meet every roofing requirement. Surfaced in crushed minerals, sand, mica, or talc. Packed in standard rolls of 36" wide and 36' long; sufficient material to cover 100 square feet of roof surface. Cement and galvanized nails included with each roll.



For further details and literature, write to:

THE BEAVER PRODUCTS COMPANY, Inc., Buffalo, N. Y.

HOME BUILDERS CATALOG

BIRD'S

Neponset Building Papers and Wall Board

Manufactured by

BIRD & SON, Inc.

Established 1795

Mills and General Offices
EAST WALPOLE, MASS.

Hamilton, Ontario, Canada
Building Products, Ltd.
Bird & Son Division

Chicago Office and Plant
1472 West 76th Street

New York Office
295 Fifth Avenue

Products

Bird's Twin Shingles (Neponset, American, Hexagonal), Bird's Double Twin Shingles, Bird's Individual Shingles, Bird's Giant Individual Shingles, Paroid Roofing and a complete line of Smooth Surfaced Roofings, Neponset Wall Board, Neponset Black Building Paper and a complete line of waterproof building papers.

Reliability

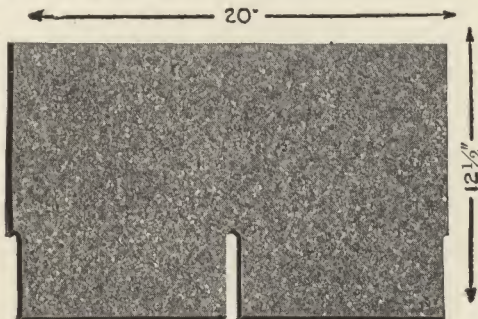
Bird's products are backed by 133 years of manufacturing experience.

Application

Full directions for the application of each of BIRD'S products are packed with the material. Architect, builder and owner should see that these directions are followed exactly.

Bird's Neponset Twin Shingles

These Shingles are two-in-one shingles 12½" deep by 20" wide. They have an extra wide butt and are self-spacing. They provide three layers of absolutely waterproof, fire-retardant protection on the roof. Handsomely slate surfaced in colors of Venetian Red, Lincoln Green, Blue-Black or Art-Blende. Adapted to roofs with a slope of 4" or more to the foot.



Neponset Twin Shingle

Bird's Super Twin Shingles

These shingles are specially suited to the handsome residence because the thickness gives the rugged appearance of slate slabs. When laid 4" to the weather three thicknesses of coverage are secured. When laid over wooden shingles it is recommended that they be laid 5" to the weather.

Bird's American Twin Shingles

These shingles possess the same qualities as Neponset Twins but are 10" deep instead of 12½" and are adapted to roofs with a pitch of 6" or more to the foot.



Bird's Art-Blende Shingles

Art-Blende is a combination of tints artistically and scientifically blended so that the color combination on the roof is unusually pleasing. The softness of tones commands admiration. The following styles are made in Art-Blende colors:

Bird's Neponset Twins Hexagonal Twins
American Twins Giant Individuals

Bird's Double Twins

These are four-in-one shingles (a strip of four shingles), possess the same qualities as the Twin Shingles. Dimensions—Neponset Double Twins, 40"x12½". American Double Twins, 40"x10".

Bird's Hexagonal Twin Shingles

These shingles are self-spacing and self-aligning. When laid they form a hexagon and produce a wide double butt effect which gives the impression of unusual thickness, weight and durability as well as excellent shadow lines. These shingles have the smooth, even crushed slate surfacing characteristic of all of Bird's Shingles and are made in colors of Venetian Red, Lincoln Green, Blue-Black or Art-Blende. Dimensions, 40x12½" and 40x10".

Paroid Roll Roofing

Bird's Paroid Roll Roofing has been used and endorsed for over a quarter century. It is heavier than ordinary smooth surfaced roofing, is pliable and will not crack in cold nor dry out in hot weather. It comes in rolls of either 108 or 216 square feet, with lap cement and nails. Has a special talc surfacing of bright gray color and unusual weather resisting qualities. Adapted to farm buildings, warehouses and similar structures.

Neponset Black Building Paper

Neponset Black Building Paper has been known and specified by architects for years as a WATERPROOF building paper of the highest grade. A strong bodied paper thoroughly saturated with asphalt, protected with glossy asphaltic coating on both sides, giving an absolutely waterproof paper. Recommended particularly for use:

1. Under all kinds of roofing.
2. Behind clapboards and shingles or stucco on the walls of buildings.
3. Between floors.
4. Between double floors that extend over an open porch.
5. Within walls of house, store or factory in place of back plaster.
6. For cellar lining.
7. For cold storage work.

Put up in rolls 36" wide containing 500 square feet, weighing 50 pounds per roll.

All Bird's Products are carried in stock by dealers in lumber and building supplies.

ROOFS



For further details and literature, write to:

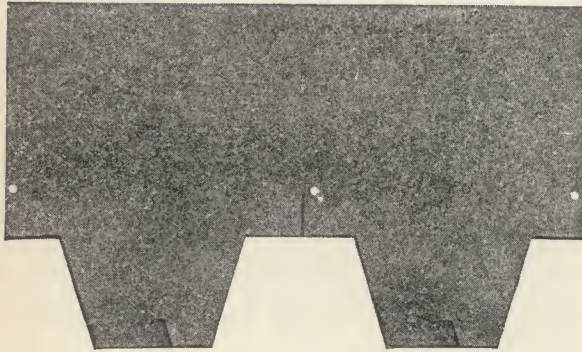
BIRD & SON, inc., East Walpole, Mass.

1472 W. 76th St.
Chicago, Ill.

CYCLONE SAFETY SHINGLES



Manufactured by
FORD ROOFING PRODUCTS CO.
529 South Franklin Street
CHICAGO



The Last Word

in

Asphalt Shingles

The Utmost in

PROTECTION

BEAUTY

ECONOMY

A Combination of Every Desirable Quality in Roofing

In the selection of the roofing material for his new home, the prospective builder should thoroughly satisfy himself on several essential points before making a decision.

The first consideration is, of course, protection—the primary function of a roof. Of lesser consequence, yet highly desirable, is the appearance, and last but by no means least—the cost over a period of years which will determine its economy.

The following explanation will show just how and why Cyclone Safety Shingles meet perfectly every requirement for use on the modern home—to a higher degree of satisfaction than any other type of roofing.

They possess several exclusive features of design, materials and construction which make them the outstanding choice of the discriminating home builder who investigates the problem with the thoroughness which the subject is entitled.

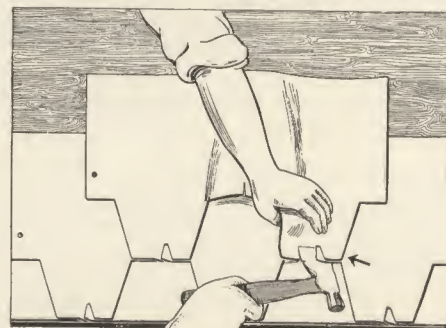
Cyclone Safety Shingles are manufactured by the Ford Roofing Products Company, who have been making roofing material since 1865. The reputation and experience of this old established company is behind every Cyclone Safety Shingle sold. Further details will be furnished on request.

Point No. 1—Locked Butts

The lower edge of every Cyclone Safety Shingle is securely and permanently locked to the one underneath it. This is an exclusive Cyclone Safety Shingle feature. It eliminates cupping or curling and prevents the wind from driving the rain under the shingles to the roof—a common source of trouble to home owners where the ordinary type of shingle has been used.

Point No. 2—Extra Head-Lap

By head-lap is meant the distance moisture would have to travel upward underneath the flap or butt of a shingle before reaching a point where it could seep



Write for this beautiful
four-color book

FORD ROOFING PRODUCTS CO.

529 So. Franklin St.
Chicago, Ill.

HOME BUILDERS CATALOG

See Next Page

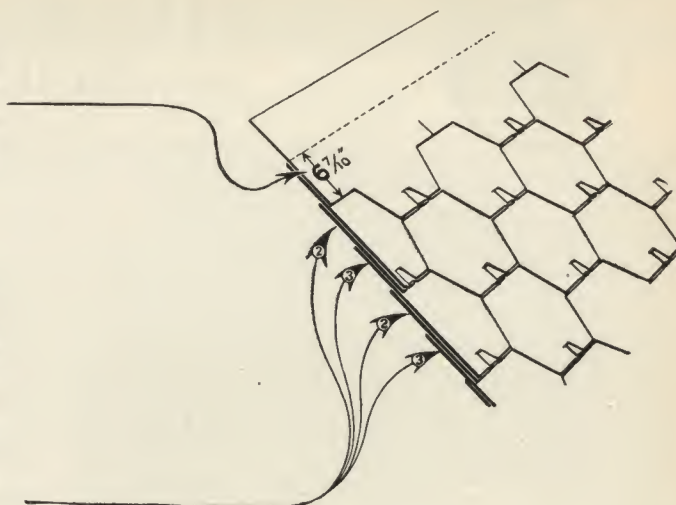
Cyclone Safety Shingles—(Continued)

(Continued from preceding page)

through to the sheathing. The head-lap on Cyclone Shingles is 6.7 inches, over four inches longer than on the ordinary type of strip shingle. This is a highly important point to remember when selecting a roof covering.

Point No. 3—Extra Durability

The diagram to the right shows also the fact that Cyclone Shingles provide double thickness all over the roof and triple thickness on nearly 50% of the total area. This means extra protection from rain and snow. And assists in keeping out the sun's heat in the summer and the cold of the winter. Few other strip shingle provides so thick a covering which makes a more durable roof as well as providing greater weather protection.



Point No. 4—Beautiful Appearance

Popular Hexagonal Pattern Rivals
the Appearance of Tile

Rich in Shadow Tone—
Permanent Colors



The photograph of a duplex bungalow, shown above, gives only an indication of the beauty of a Cyclone Shingle Roof. The Cyclone Shingle provides a massive hexagon pattern so greatly preferred by building owners. The double thickness at the butt results in a deep shadow, producing a tile like effect which makes a roof of beauty as well as the last word in protection. A wide range of soft, beautiful shades offer the home builder considerable latitude in making his choice from a color standpoint.

Point No. 5—Costs No More Than Any Other Asphalt Shingle Roof

Notwithstanding all the advantages accruing to the building owner, a Cyclone Shingle Roof will cost but

little if any more than a roof covered with the ordinary type of shingle. But even at a slight additional cost, by virtue of the superior protection and greater durability it affords, a Cyclone Shingle Roof is by far the most economical.

For old buildings Cyclone Shingles are an ideal re-roofing material. They can be laid right over the old shingles and save the annoyance of broken shrubbery and a litter of old shingles all over the lawn.

Cyclone Shingles have been successfully used on the roofs of every type of building from bungalows to huge edifices, from one end of the country to the other. There is a Cyclone Shingle Distributor in practically every locality who can supply you.



For further details and
literature write to:

FORD ROOFING PRODUCTS CO.

529 So. Franklin St.
Chicago, Ill.



"Not a Kick in a Million Feet"

MULE-HIDE ROOFS ASBESTOS

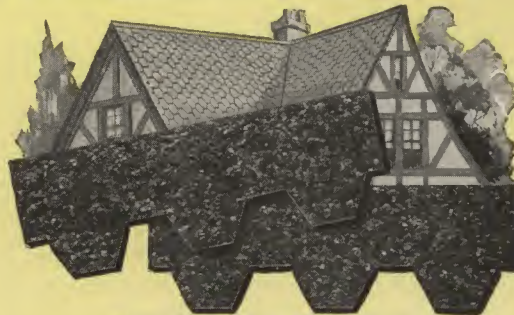
Manufactured by

The Lehon Company, 44th to 45th St. on Oakley Blvd., Chicago



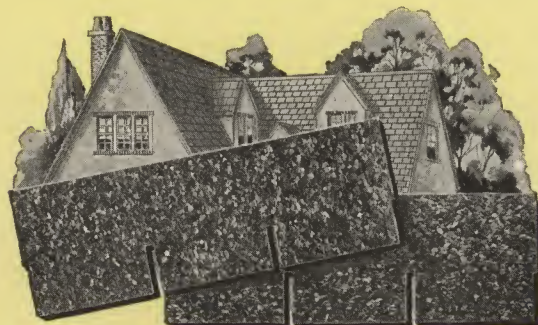
Mule-Hide Four Unit Type Shingles

This popular multiple type shingle is manufactured of standard quality Mule-Hide all rag felt that, after being impregnated with imported Mexican Asphalt provides a roof that is absolutely waterproof and all weather resisting. Two sizes are available: 10x36" weight 190 lbs. per sq.; 12½x36" weight 240 lbs. per sq. Colors Red, Green, Blue-Black, Golden Brown and Rainbow.



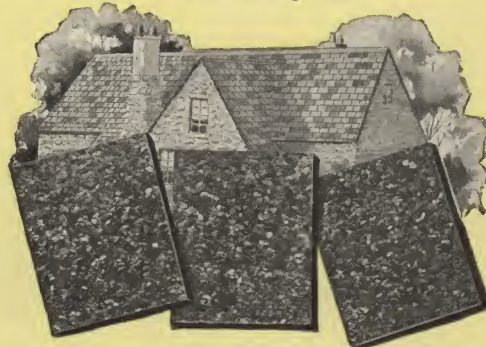
Mule-Hide 3 Tab Hex Shingles

"The Prettiest Roof in Town" is the usual compliment passed on this more artistically designed shingle. Practical in design, individually attractive, this hexagon designed shingle has all the advantages of quality found in other styles of Mule-Hide Shingles. Contractors and home builders as well as present home owners who plan to modernize their roof by recovering, will be interested in this shingle because of its reasonable cost. Two sizes available, 10x36" weight 160 lbs.; 12x36" weight 195 lbs. Colors Red, Green, Golden Brown, Blue-Black, Rainbow. Also Persian and Onyx Blends in the larger size.



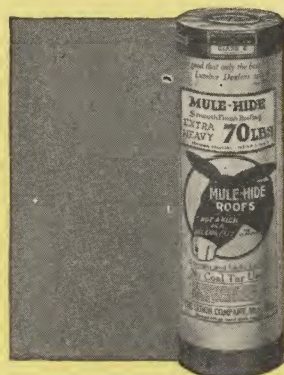
Mule-Hide Giant Three Unit Type Shingles

Double thick and massive in size this heaviest of all unit type asphalt shingles produces a deep, heavy shadow line that is pleasing to the eye. Automatically self spacing and self aligning this shingle is easily and quickly applied. Only 83 units needed to cover 100 sq. ft., an economic feature that makes for reduced labor cost. Weight of these heavy shingles 240, size 12x36" Exposed 5" to weather. Colors Red, Green, Blue-Black, Golden Brown, Rainbow and Persian Blend.



Mule-Hide Giant Double Thick Individual

Heaviest and largest individual type shingle manufactured. Being thicker and heavier it casts heavy shadows that produce beautiful two-tone effects. The same good grade of selected all rag felt and genuine imported grade Mexican Asphalt used exclusively in the manufacture of this shingle. Where long wearing service is essential this shingle is heartily recommended. Size 10x15¼". Weight 300 lbs. Colors Red, Green, Blue-Black, Terra Cotta tone, Brown tone, Purple tone, Onyx Blend and Rainbow.



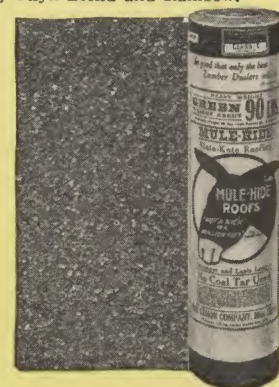
Mule-Hide Smooth Finish Roll Roofing

The original Mule-Hide Roofing developed more than twenty years ago. The extra strength and toughness of this product long ago established the record "Not a Kick in a Million Feet." Made of selected all rag felt, thoroughly saturated with Mexican Asphalt. This roofing is made in three weights, 50, 60 and 70 lbs. Where long wearing service is demanded this extra strong roof will meet every reasonable expectation.



Mule-Hide Asbestos Shingles

As enduring as the rock of the ages, Mule-Hide Asbestos Shingles are absolutely fireproof being composed of unburnable cement and natural mined asbestos. Manufactured by what is termed the laminated process (built up layer upon layer) these shingles have greater flexibility than the more common grades of rigid shingles. Practically indestructible, these sturdy shingles assure everlasting protection. Easily applied over old shingles. May be had in these unfading colors: Pearl Gray, Newport Gray, Blue-Black, Red Veneered and Green Veneered.



Mule-Hide Slate Surfaced Roofing

The same good quality materials—all rag felt base and imported quality Mexican Asphalt used in the manufacture of this quality as are used in the making of Mule-Hide Smooth Finished roofing. The uniform slate surfacing gives added fire resisting protection at the same time a roof of pleasing unfading color. May be had in three weights and in colors Red and Green in the lighter weights. In the heavier weight Red, Green and Blue-Black.

MULE-HIDE BUILT-UP CONSTRUCTED ROOFS
over concrete, gypsum, tile insulation and wood for flat roof

decks, apartment buildings, hotels, garages, etc. Write us for detailed specifications for applying this modern type roof.

The MULE-HIDE "Storm-Safe" Roof



Beauty that will endure

DISTINCTIVE in design, combining the charm and lasting beauty of Nature's unfading colors, for which Mule-Hide Roofs are recognized, there is now offered to prospective home builders,—and others who plan to modernize their old roofs,—an asphalt shingle that is actually locked down to the roof boards. Held secure by a hinged copper lock.

Aside from the super safety feature (found exclusively in this Mule-Hide Storm-Safe Roof) this permanently anchored shingle provides double thickness cover-



age over the entire roof and triple thickness protection over more than 50%! Another significant advantage is the headlap—that unexposed portion of the shingle which extends back up on the roof boards for a distance of $6\frac{7}{8}$ inches! This hidden wall of protection serves as a Gibraltar-like barrier defying inroad of the severest wind, rain, sleet or snow storm.

Ask your Mule-Hide Dealer to show you this extra safe roof that has every shingle butt anchored flat to the roof boards!

The Lehon Company

Manufacturers

44th to 45th Street on Oakley Avenue

Chicago, Illinois



ROOFINGS AND SHINGLES

LOGAN-LONG ASPHALT ROLL ROOFINGS, SHINGLES, SLABS, ETC.

MANUFACTURED BY

THE LOGAN-LONG COMPANY

PLANTS:

Atlanta, Georgia — Franklin, Warren County, Ohio

OFFICES: 37 West Van Buren Street, Chicago — 517-518 Dixie Terminal Building, Cincinnati, Ohio
1215 Sylvan Road, S. W., Atlanta, Georgia

Another New Service Added

Pre-Sorted Blends

(Ready To Lay)

The New Way to Select a Roof that Insures
COLOR HARMONY

Logan-Long has truly changed roof-selecting from a fine art to an exact science. Heretofore, the main fear of the average home-builder when considering a vari-colored roof has been the belief that complete color harmony was achieved at best by guess-work, and that only by chance would color harmony be assured. In the past this fear was, to a certain extent justified, for the old method of roof-blending carried the implication that the roofer must be something of an artist in so mixing the different colors on the roof as to secure a pleasing and harmonious effect. This, however, is a thing of the past, for you may now secure Logan-Long Shingles in pre-sorted blends. What is a pre-sorted blend? The old way has been to pack all the red shingles in one bundle, all the greens in another, and so on. To obtain a blended roof, the

roofer opened several bundles and selected to his own taste those he wanted to group together. The disadvantage of this was that the finished effect was never definitely known in advance. In pre-sorting, the proper colors to achieve a certain effect are selected by our color-specialists at the factory and there packed in a single bundle. Now when a roofer opens a pre-sorted bundle, all he need do is lay them on the roof as they come. This secures the desired effect without chance of error. Pre-sorting therefore, is your insurance that you will obtain the roof-blend that you want, and this holds true no matter who applies the shingles, whether roofer, carpenter or yourself. Logan-Long offers you this service in the knowledge that it completely insures your roof-satisfaction. Your dealer will give you more information about this new and valuable service.

THE LOGAN-LONG GIANT TU-HEX — 13½ INCHES WIDE — 36 INCHES LONG — ALL COLORS



For further details and literature, write to:

THE LOGAN-LONG COMPANY

37 W. Van Buren St.
Chicago, Ill.



LOGAN-LONG

Color Harmony



Genuine RU-BER-OLD Shingles and Roofings

Manufactured by

The RUBEROID Co.

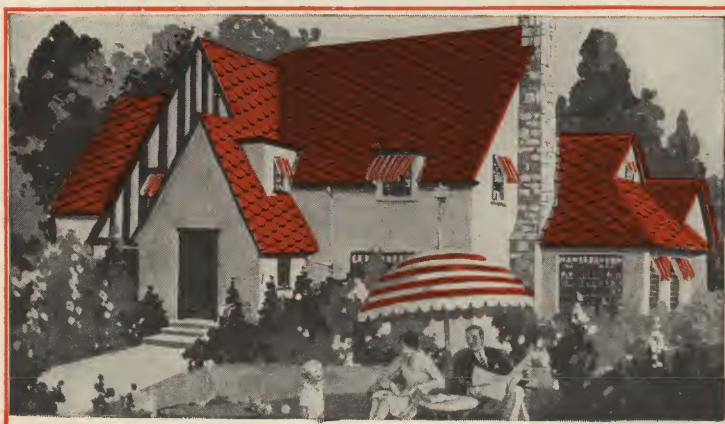
CHICAGO

NEW YORK

BOSTON

Genuine Ruberoid Roofs in all parts of the world are giving dependable service under all sorts of weather conditions—and have been for years. They defy the sleet and hail storms of the north and the blistering heat of the tropical sun. Their fire-resisting qualities have been passed by the Underwriters Laboratories, Inc., and they bear their label of approval.

Genuine Ruberoid Roofs may be obtained in shingle and roll form—in weights and designs to meet every roofing or re-roofing requirement. The shingles come in a wide variety of rich natural slate colors—also in several 3 and 4-tone combinations



(packed pre-assorted, ready to lay). From this selection it is easy to choose roofs of outstanding charm and quality that best suit the requirements of any architectural style.

In *Genuine* Ruberoid Shingles and Roofings you will find the ideal combination of beauty, quality, service, and dependability.

A word of warning!
Do not be confused

by the verbal use of the word "ruberoid." Some people make the mistake of referring to Ruberoid as a type of roof rather than a brand name. When you ask for Ruberoid Shingles and Roofings be sure to insist on *Genuine* Ruberoid.



40% extra thickness, double butts, heavy shadow lines—six rich colors: Terra Cotta, Valley-green, Mountain-purple, Midnight-blue, Heather-brown, Tweed-grey. Two-4-tones—Red and Green. Size 36" x 13½", headlap 3". 76 strips per square. Weight approx. 3 lbs. per shingle.

Genuine Ruberoid Hex-strips 13½ Inch

Standard weight Hex—Colors: Terra Cotta, Valley-green, Midnight-blue. Two 3-tones—Red and Green. 76 strips—Weight approx. 160-170 lbs. per square.



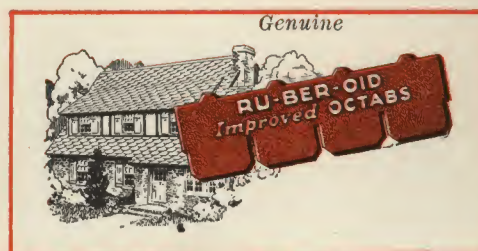
Extra size, extra weight, and unusual rigidity provide a roof that will give years of dependable service. The extra large headlap of the *Genuine* Ruberoid Massive Unit Shingle assures absolute protection against leakage. Owing to size, it takes less time to apply than an ordinary individual shingle. There is a wide choice of beautiful colors from which to make selection: Terra Cotta, Valley-green, Mountain-purple, Midnight-blue, Heather-brown and Tweed-grey.

Size 12" x 16", laid 5¼" to the weather—allowing 5½" headlap. 220 shingles per square. Weight approx. 310-320 lbs. per square.



Here is a Strip-shingle designed to "stay put" in the worst kind of weather—a shingle that defies the fury of the elements and the onslaughts of time. The Hurricane Hex-strip has a 4" headlap as well as an interlocking safety feature. Besides all this the beauty of *Genuine* Ruberoid Hurricane Strips increases the attractiveness of the home. This Strip-shingle comes in four colors: Green, Blue-black, Red and Vari-tone.

Size: 20" x 36"—Headlap 4"—Strips per square 50—Weight approx. 160-170 lbs. per square.



Improved Octabs have increased width of "cut-outs"—slightly modified "Octagon Corners." Comes in 4 colors—Valley-green, Terra Cotta, Midnight-blue, Varitone. Size: 10½" x 36". Headlap 2½". Strips per square—100. Weight approx. 200-210 lbs. per square.

Genuine Ruberoid Square-tabs

Designed to affect the appearance of an individual shingle. 4 colors—Sage-green, Tile-red, Steel-blue, Varitone. Size: 36" x 12½", also 36" x 10". Headlap 4½" and 2". Strips per square 100. Weights approx. 235-245 lbs. and 185-195 lbs.



For further details and literature, write to:

The RUBEROID Co.

95 Madison Ave.
New York City

Genuine RU-BER-OID Shingles and Roofings

Manufactured by

The RUBEROID Co.

CHICAGO

NEW YORK

BOSTON

ROLL ROOFING

Genuine Ruberoid Smooth Roll-roofing

No expense is spared to make this the finest smooth roofing possible to make. There are many examples today where genuine Ruberoid has been on roofs for more than 25 years and is still in good condition. Nothing but the very best material is used in its manufacture. Each roll contains large headed, zinc-coated nails and lap cement. Genuine Ruberoid can be had in 3 weights: Medium, approximately 50 lbs. per 108 sq. ft., roll 36 in. wide. Heavy, approximately 60 lbs. per 108 sq. ft., roll 36 in. wide. Extra, approximately 70 lbs. per 108 sq. ft., roll 36 in. wide.

Genuine Ruberoid Mineralized (Heavy) is made of the same high grade materials that go into the manufacture of smooth-surfaced Ruberoid. The surfacing, however, is of genuine crushed slate in Green, Red and Steel-blue. Underside is coated. There is a 2-inch bare marginal edge for nailing



A 32-year-old Ruberoid Roof on one of the Foster Store Company's buildings, Ironton, Ohio. This remarkable service record is characteristic of thousands of genuine Ruberoid Roofs on industrial buildings, barns, sheds, etc.

and cementing. Large headed zinc-coated nails and lap cement are furnished in each roll. Weight is 85-90 lbs. per 108 sq. ft. Roll is 36 inches wide.

BUILDING PAPERS

Ruberoid Giant Sheathing

A saturated and coated insulating paper that is odorless, water-proof and airtight. When used between clapboards, window frames, floors and as an interlining between roof deck and roof, it keeps houses cool in summer and warm in winter. Comes in 500 ft. rolls 36 in. wide. Weight, 35 lbs. per roll.



Ruberoid Asphalt Sheathing

A less expensive saturated sheathing paper. Comes in 500 ft. rolls, 36 in. wide.

Ruberoid Asphalt Felt

A felt saturated with pure asphalt. Comes in three weights—eleven, fifteen and thirty pounds per 108 square feet. Used for sheathing or with roofing asphalt in the construction of built-up roofs.



ROOF COATINGS AND CEMENTS

Ruberoid Plastic

Ruberoid Plastic is made of asphalt gums mixed with asbestos fibres. It is ideal for repairing leaky seams, cuts, rents, etc., in composition or metal roofs and for pointing up chimneys, flashings, firewalls, etc. It is of trowelling consistency and can be had in cans and drums of various sizes.



Ruberoid Roof Coating

A liquid preservative for composition or metal roofs. Will not crack, melt, check or peel. Penetrates into the felt base and adds years and years of roof life—at trifling cost. On metal roofs it forms a protective coating that effectively resists the elements. Furnished in Red, Green and Black in convenient size containers.

Ruberoid Liquid Fibre-cement

Ruberoid Liquid Fibre-cement, made from asbestos fibres and weatherproof asphalt compound, is particularly suitable for repairing roofs so badly worn as to require a heavier bodied material than liquid coating. It is elastic and will not dry, chip, soften or run. It spreads easily and comes ready for use in cans or drums of convenient sizes.



For further details and literature, write to:

The RUBEROID Co.

95 Madison Ave.
New York City

K-V-P BUILDING PAPER

Manufactured by
KALAMAZOO VEGETABLE PARCHMENT COMPANY
Kalamazoo, Mich.

BUILDING PAPER



A Better Building Paper

Our Building Paper will protect the homes you build from dust seepage, air leakage and dampness. Used under roofing and siding, K.V.P. Building Paper forms a tough, dustproof, windproof and waterproof skin over the entire house, minimizing heat losses in winter and keeping the interior of the house delightfully cool in summer. It is not affected by the sun, sheds water like a duck's back and will outlast any building in which it is used.

Reasons why every Architect should specify it, every Dealer stock it, every Contractor and Builder use it:

Air-Proof

Outlasts the Building

Sun-Proof

Rot-Proof

Insulates

Vermin-Proof

Tough

Moisture-Proof

K.V.P. Building Paper is made in three weights—light for use under flooring, medium and heavy for use under roofing and siding. It is put up in rolls, each roll containing 167 lineal feet, 36 inches wide, or 500 square feet.

Real Value

Do not compare KVP Building Paper with the average sheet—it is out of the highly competitive class because it does more. KVP Building Paper serves best and it will please your customers.

Sold by:—

Wholesale Lumber Dealers Wholesale Hardware Houses
Building Supply Companies Wholesale Paper Merchants

Makes Profitable Repeat Business—One of the reliable K.V.P. Products made to meet a definite need and perform a definite service. If you find your usual source of supply does not carry it, drop us a line, giving us the name of the company that furnishes you with building supplies, and we will see that your order is filled. **ASK FOR SAMPLES.**



For further details and literature, write to:

KALAMAZOO VEGETABLE PARCHMENT COMPANY

KALAMAZOO,
MICH.

SISALKRAFT

Tough, Strong, Waterproof, Windproof and Clean—Applied Like Building Paper

THE SISALKRAFT CO.

228 N. La Salle St. CHICAGO, ILL.

Sales Division of the American Reinforced Paper Co., Attleboro, Mass.

Sisalkraft

is an entirely new, waterproof product combining the features of remarkable strength with a degree of waterproof protection previously unknown. Sisalkraft is made of two layers of tough kraft between which is placed a double layer of the finest asphaltum. Java rope sisal fibres are embedded in the asphalt, laid both lengthwise of the roll and across it. All these materials are rolled together under heavy pressure while hot making an almost indestructible, waterproof material of almost unbelievable strength.

Advantages

Sisalkraft is by far the strongest, toughest material available for the regular building paper uses. It is so strong that it will successfully withstand rough handling and resists tearing or damage by wind or accidents during the progress of construction.

The almost unbelievable strength of Sisalkraft means that it can be applied with ordinary large-head roofing nails instead of requiring cleats or battens to hold it in place. Thus Sisalkraft is applied with less labor and less effort than any similar material and its strength allows application without rips or tears, making a perfect waterproof and windproof covering under all circumstances. Sisalkraft can be pulled tight around corners and tucked into valleys covering every inch of the surface with a perfectly tight waterproof and windproof layer entirely without cracks or rips which are so common with other materials.

Sisalkraft is so completely waterproof that it can be folded up into a cup shape and will hold water for three or four months by actual test. The double layer of asphaltum in Sisalkraft is protected by the two layers of tough kraft so that the asphaltum never dries or cracks and thus the waterproof qualities are retained indefinitely. Sisalkraft which has stood in buildings for a number of years has been exposed when remodeling and is always found to be in perfect condition.

Unlike other "waterproof" papers Sisalkraft is clean on both sides. Always pleasant and easy to handle and always dry and safe if used to cover materials or as a protection to finished floors and other finished portions of the house.

In construction of all kinds Sisalkraft can be used in the walls and under floors and over the rafters in roof construction to provide not only a complete waterproof protection but also an absolute wind-stop. This wind-stop feature is extremely important in residence construction for recent experiments have shown that a great deal of the heat losses through the walls of practically all types of construction is occasioned by actual air infiltration. Sisalkraft being easily applied as a tight wind-stop completely prevents the infiltration of air through the walls of the structure producing a more comfortable building and being directly responsible for a considerable saving in fuel. By a



special method of application Sisalkraft can be used to produce multiple dead air spaces in walls thus providing a very desirable insulating effect at very moderate cost.

When used as a floor lining Sisalkraft provides an absolute stop for dust, dirt, gasses and moisture which are so frequently carried into the upper floors of the residence from the basement. Because Sisalkraft is waterproof it absolutely prevents the swelling of finished wood floors due to the transmission of moisture.

Uses Are

In frame construction Sisalkraft should be applied over the sheathing in place of building paper where it gives a completely waterproof and windproof layer of protection to the outside walls. Because of Sisalkraft's remarkable strength it is easily applied in a tight and perfect condition all over the outside of the sheathing. Sisalkraft is equally effective when used in place of sheathing paper under brick veneer, stucco, shingles or clapboards.

For backplastering to give double dead air space keeping out heat, cold and dampness. Between or under the rafters on the roof keeping heat in.

As a floor lining over the rough floor where it provides a waterproof, air-tight protection between the basement and the rest of the house.

For temporary garages, camps, enclosures for machinery, storage sheds, etc.

Covering for finished floors to protect them from painters, plasterers and other workmen.

Covering for finished interiors, walls, furniture, etc., when decorating.

On cement buildings to protect brick curtain wall when pouring cement under steel sash.

Contractors find that besides being the finest material for this purpose Sisalkraft cuts down labor and reduces the handling and grief—in fact produces a far superior job without increase in the cost. Sisalkraft can be used for dozens of temporary purposes such as covering materials, cement, lumber, etc.; covering in spaces left for doors and windows; for temporary partitions; covering unfinished walls and for protection to finished floors, etc. Sisalkraft can be used for these protective purposes and can then be rolled up and used again as a sheathing paper or as a floor lining. Its remarkable strength permits it to be used over and over again for temporary purposes without breaking or cracking or being otherwise damaged.

Get a sample of Sisalkraft and see for yourself the remarkable properties of this new material. Examine its strength, find out how waterproof it is and you will see why contractors and home builders all across the country are using it in increasing quantities every day. Sisalkraft samples can be obtained from your local building material dealer or direct from the Sisalkraft Co., 228 N. LaSalle Street, Chicago, Ill.



For further details and literature, write to:

THE SISALKRAFT COMPANY

228 N. La Salle St.
Chicago, Ill.

NEVERUST BRAND Hot Galvanized NAILS

Manufactured by
WILCOX, CRITTENDEN & COMPANY, INC.
Middletown, Conn.

Wilcox, Crittenden & Co. have been producing Galvanized Iron Nails for use in the Marine Field for many years—Nails that have withstood the test of service on or near salt water. There is no more exacting field. As the world's largest manufacturers of Marine Hardware, most of which is Galvanized, this company has earned a reputation for Rust Proof Marine Fittings. Their name has become a guarantee of *dependability*.



TRADE MARK

Neverust Nails for the Building Industry

The Nails illustrated on this page are made especially for the building industry. They are Rust-Proofed by the same time-tested methods we use for Rust-Proofing our Marine Hardware. You can use them with roofing, flooring or siding with absolute assurance that they will outlast the wood into which they are driven. We make Galvanized Wire Nails as well as the Cut Nails illustrated, but recommend the latter because they hold better and are more durable.



**Galvanized by the
HOT DIPPED METHOD
and heavily coated with
PURE ZINC**

The Hot Galvanizing Process coats each Nail heavily with Pure Zinc. No other Process of Zinc Coating even approaches it in point of durability. Neverust Brand Nails have been removed from roofs within a few feet of salt water after 40 years of service with their Zinc Coating intact. Nails coated by different methods have a similar outward appearance, but it is the extra coating of Pure Zinc on each Neverust Nail that gives it a much longer life than the cheaper nail.

Don't Economize on Nails

When Nails rust out—costly repairs result, but it is shingles, paint and labor that run into dollars. Nails are a mere matter of cents. Whether the shingles are the best or the cheapest, it is the Nails that determine how long they stay on a roof. (Rust stains on clapboards can be prevented by using High Grade Galvanized Nails.) Neverust Nails on shingles mean an extra outlay of about 10c per 1000 shingles. Isn't it worth 10c to be sure the nails will outlast the shingles?

Write for Samples

We want all building contractors, and prospective home builders, to know about these better nails. Write for an interesting booklet on NEVERUST NAILS, free samples and name of dealer.



NEVERUST Cut Shingle Nails, Regular

Sizes: 2d, or 1-in.; 2½d, or 1½-in.; 3d, or 1¼-in.; 3½d, or 1¾-in.; 4d, or 1½-in. Sizes 1 and 1½-in. are known as Cottage Nails.

NEVERUST Cut Shingle Nails, Special Light Pattern

Sizes: 3d, or 1¼-in.; 3½d, or 1¾-in.; 4d, or 1½-in. approx. 30% more 3d; 40% more 3½d; 50% more 4d to the keg by actual count than Regular Cut Shingle.

NEVERUST Cut Slating Nails

Sizes: 2d, or 1-in.; 3d, or 1¼-in.; 3½d, or 1¾-in.; 4d, or 1½-in.; 5d, or 1¾-in. 6d, or 2-in.; 8d, or 2½-in.

NEVERUST Cut Clapboard Nails

Sizes: 4d, 5d and 6d Cut Box Nails, or 5d and 6d Wire Nails are usually used for clapboards.

NEVERUST Cut Flooring Nails

8d, or 2½-in. nails are generally used for flooring.
All nails heavily coated with pure zinc.



For further details and literature, write to:

WILCOX, CRITTENDEN & CO., INC.

MIDDLETOWN,
CONNECTICUT

Beautiful Birch—For Beautiful, Colorful Interiors

Manufactured by Members of

The Birch Manufacturers and The Rotary Birch Club
231 F. R. A. Building
Oshkosh, Wisconsin



Products

Birch Lumber and Birch Rotary Cut Veneer made from unequalled stands of Yellow Birch (*Betula Lutea*) and Sweet Birch (*Betula Lenta*), in the great hardwood forests of Michigan and Wisconsin.

Description

No distinction is made between these closely related species, as a rule. Both produce lumber sold commercially as unselected or mixed color birch, selected red birch and selected white birch. Red birch is the slightly reddish heartwood and white birch the outer part of the same tree. Unselected birch contains both the reddish heartwood and the nearly white sapwood in the same board.

The sapwood takes stains as readily as the heartwood—in this respect differing markedly from other finishing woods. It is unnecessary to specify “selected” birch for satisfactory results in the darker stains, the mixed colors of “unselected” birch blending perfectly under the stain to produce a uniform color tone. For light colored stains it may be desirable to specify “selected red” or more likely “selected white.” Contrasting effects can be secured by using light colored stains on “unselected” birch.

Unselected birch is more economical to use where practical, as a larger quantity of mixed color lumber is obtained from the log than of selected red or white. A log will, however, supply a greater amount of selected red and selected white in rotary cut veneers than in sawn lumber.

A beautiful variation, especially in veneers, called Curly Birch, can be had in either red, white or unselected. It commands a premium as it is only here and there in the forest that there is a tree or part of a tree containing this beautiful wavy grained, pearly or “changeable silk” variety of wood.

Specify, “Wisconsin-Michigan Sweet or Yellow Birch,” (*Betula Lenta* or *Betula Lutea*), selected or unselected for color, as there are other species of birch that do not possess the attractive grain, strength and nearly marproof hardness of these two species. Most of the birch lumber and veneers of commerce originate in these two states.

Hardness

Wisconsin-Michigan Birch is one of the hardest hardwoods. In U. S. Forest Products Laboratory tests it required 1320 pounds of pressure to imbed an 0.444 inch steel ball one-fifth of an inch into the side grain of air-dried birch, a most important test as the forces of wear and indentation ordinarily come against the side grain of a wood used for trim, doors, floors and furniture. The hardest of hardwoods is most economical in the long run, as a fine finished appearance can only be retained by this quality of extreme hardness. Birch has it in high degree.

Strength

In all these tests for strength at the U. S. Forest Products Laboratory—static bending, impact bending, compression parallel to the grain and tension perpendicular to the grain—birch exceeded all other commercial hardwoods. And in shearing strength parallel to the grain, birch compared favorably with other quality hardwoods.

Beauty

With hardness and strength, birch combines beauty. It has an attractively figured grain, takes a high finish and retains it. Wisconsin-Michigan birch looks equally well whether plain or quarter sawed. Wonderful effects are secured with rotary cut birch veneers over broad surfaces and nothing surpasses Curly Birch for delicate and satisfying beauty.

Interior Trim

Wisconsin-Michigan Birch is widely recognized as an excellent interior finishing wood for residences, apartments, hotels and public buildings, because of supreme resistance to wear. Thin and narrow casings are possible in birch without sacrificing permanence. It will not twist, warp nor check and joints remain tight.

Birch Rotary-Cut Veneer and Plywood

Wisconsin-Michigan Rotary-cut Birch Veneer can be had

in thin veneers or in built-up panels. It is cut in long, wide sections from around the log—a method that brings out the full richness of the grain.

It is adaptable to doors and panel work of all kinds, is widely used for wainscoting, and for fixtures, furniture, display window woodwork, in fact, for all purposes requiring attractively figured wood in large areas.

Wonderfully beautiful effects are achieved by matching the pattern to secure symmetrical designs while strikingly attractive contrasts are obtained by opposing, reversing or otherwise applying figured veneer of similar pattern. Wisconsin-Michigan rotary-cut birch veneers, both plain and “curly,” can be had in “selected red,” “selected white,” and “unselected” or mixed color.

Because of its dense grain, Wisconsin-Michigan birch produces rotary-cut veneer not subject to checking, being superior to woods from which only sliced veneers can be safely used.

Birch plywood panels are usually made in 3 ply and 5 ply thicknesses. Built-up of thin layers of veneer with the strength fibres running transversely to each other, these plywood panels resist atmospheric change, and are stronger than solid wood of the same thickness, combining strength with light weight.

Birch Doors

Birch veneered doors are usually specified with a standard 1/8 inch veneer on the frame of the door applied to a softwood core; panels of 3 ply or 5 ply thicknesses. Names of manufacturers of birch doors upon request.

Birch Flooring

Birch trim calls for birch floors to secure harmonious beauty. In service value, Wisconsin-Michigan birch flooring is comparable with Northern Hard Maple flooring, having practically the same physical properties, including hardness.

It comes in both red and unselected for color. Selected red birch floors are very desirable in most schemes of interior decoration, especially with trim and furniture of birch or mahogany. Birch flooring comes in the same grades and sizes as maple flooring, and is manufactured and graded under the rules of the Maple Flooring Manufacturers Association (332 South Michigan Avenue, Chicago). See pages 160-161 of this catalogue.

Finishing

Wisconsin-Michigan Birch lends itself perfectly to any finish applied to a first class hardwood.

Some wonderful new transparent stain finishes have been developed for birch in a wide range of colors and tones—from light, cool green to deep, mellow brown; from a delicate orchid to a rich, rare ebony. These “in the wood” stains bring out the full richness of the attractively figured birch grain in a wizardry of color that entralls the admiration of all who behold it.

Because of the small pores, a filler is usually not employed for birch. If a dark filler is used, the pores can be made conspicuous, giving the wood additional figure, but this is not recommended.

Rubbed, or rubbed and polished finishes, give fine results with birch. It is also of just the right density and texture to form a superior base for enamels, for which use unselected birch is recommended.

Cooperation and Information

The Birch Manufacturers and The Rotary Birch Club will put inquirers in touch with sources of supply for birch doors and millwork, birch flooring, plywood panels and rotary cut birch veneer, etc.

A handsome book on Birch and its uses, “Beautiful Birch for Beautiful Woodwork,” is sent free upon request. It concisely states the physical and finishing qualities of Wisconsin-Michigan Birch and shows many fine interiors designed by eminent architects as well as beautiful panels in color showing effects to be had in the new stain finishes described above.

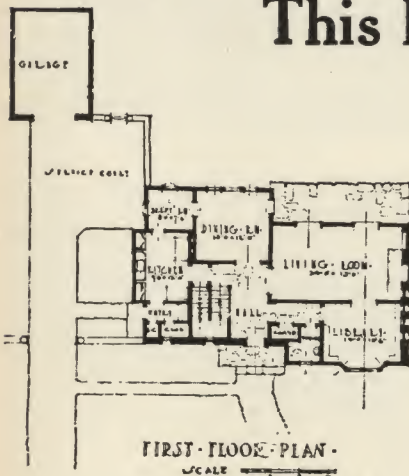
For further details and literature write to:

The Birch Manufacturers and The Rotary Birch Club

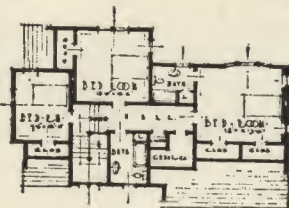
231 F. R. A. Building
Oshkosh, Wisconsin



This home of wood won first prize in architectural competition



Note the careful planning of this home—its convenience and livability



• SECOND-FLOOR PLAN •

Choice lumber from the forests of the Pacific Northwest—America's permanent lumber supply—is now and always will be available for your home building needs.

THE home design shown above won the \$2000.00 first prize for Otho McCrackin of Hutchinson, Kansas, in the recent nation wide competition under the auspices of the Washington Chapter of the American Institute of Architects and the West Coast Lumber Bureau.

More than two hundred architects from the United States, Canada, England and France entered this competition—proving that our object, the stimulation of better home architecture, is of great interest to architects. The competition has in addition demonstrated the value that architects attach to wood and particularly to Douglas Fir, West Coast Hemlock, Sitka Spruce and Western Red Cedar in home building.

These outstanding West Coast woods are ideal material for building any class

of home. *Douglas Fir*, for instance, is the most widely useful wood in existence—strong, stiff, durable and beautifully grained—for framing, sash, doors, floors, panels, siding, gutters, exterior and interior trim; *West Coast Hemlock*—clean, bright, non-resinous, free from shake and brash—a favorite for interior trim and flooring; *Sitka Spruce*—clear, smooth, uniform in texture and non-warping—much used for drainboards, refrigerators, interior trim to be enameled, and kitchen fittings; *Western Red Cedar*—soft and aromatic—one of the most durable of all woods for exterior uses.

We will be glad to send you copies of the architects sketches and construction suggestions for this and eleven other prize winning homes, together with four recently published books describing the value and uses of the four outstanding West Coast woods. Just address West Coast Lumber Bureau, Mt. Hood Bldg., Longview, Wash.

Durable
Douglas Fir
America's Permanent
Lumber Supply

Important West Coast Woods

Douglas Fir

Sitka Spruce

West Coast Hemlock

Western Red Cedar

Tidewater Cypress

Annual
Production
200
Million Feet

Southern Hardwoods

Produced by
GULF RED CYPRESS COMPANY
JACKSONVILLE, FLA.

Short Leaf Pine

Planing Mill
Capacity
125
Million Feet

A Hundred Year Test of Wood!

WOODEN water mains—what could better test the durability of lumber? Water attacking from within... rot gnawing from without.

In 1793, New Orleans laid logs of Tidewater Red Cypress for its water supply. These logs were recently dug up and found in excellent condition—still sound, still useful, after more than a hundred years of service!

But this striking testimony is only one of the thousand proofs of the durability of Tidewater Red Cypress. This lumber is used the world over in shipbuilding. Millions of railroad ties are made of it. Many houses built of it are over two centuries old, and the country is still too young to tell how long a cypress structure can endure.

In your business and in your home, use this Wood Eternal for economy. Its first cost is the only cost. It knows no replacement or repair charges. After you build, it

We Solicit Your
Orders for Straight
or Mixed Cans of
Cypress, Southern
Hardwoods and Short
Leaf Pine, either
rough or dressed.

will never cause you to pay another carpenter's bill.

You Need Not Paint It!

No wood, according to government tests, takes paint more smoothly or more durably. But to get long service from Tidewater Red Cypress, *you need not paint it*. Unaided by any artificial protection, it gives generations of wear. Just figure out the upkeep charges this wood can save. And, because it is easy to work, consider how it speeds construction and cuts down the high cost of labor.

As an experienced investor, as a shrewd purchaser, you will, of course, want to test this durable wood. But for exterior uses be sure you get "heart grade Tidewater Red Cypress," for there are different types of cypress. The finest qualities are found only in the "coastal type" red cypress grown on the lower Atlantic and Gulf coasts.



Although laid in 1793, and put to such a severe test of its durability, this water main was in fine shape when dug up recently.

SPECIFY CYPRESS—"THE WOOD ETERNAL"



For further details and
literature, write to:

GULF RED CYPRESS COMPANY, Jacksonville, Fla.

Louisiana Red Cypress, "The Wood Eternal"

Manufactured by the Member Mills of the

513 Carondelet
Street

LOUISIANA RED CYPRESS BUREAU

New Orleans
Louisiana

PRODUCTS

Louisiana Red Cypress Lumber, Lath and Shingles.

Guaranty of Quality

Builders can make certain of getting the genuine "Wood Eternal" by clearly specifying: Louisiana Red Cypress, manufactured by a mill which is a member of the Louisiana Red Cypress Bureau. This carries assurance of responsible manufacture, proper seasoning, accurate grading, full standard sizes and quality stock.

Region of Growth

Louisiana Red Cypress grows in the swamplands of lower Louisiana, and is commercially known as "Tidewater" Cypress, as distinguished from "inland" or "upland" cypress, which does not possess the characteristic qualities of Louisiana Red Cypress to any desirable degree.

Durability

Louisiana Red Cypress, containing a natural preservative, is one of the most durable of American woods. This applies specifically to the heartwood, consequently heart grades should be used where resistance to decay is required, as in contact with the soil or when exposed to moist, humid and certain acid conditions; also in wood-work, left to weather in its natural color.

Properties

Louisiana Red Cypress varies in color from slightly reddish to deeper red, and to almost black. The sap-wood is a much lighter shade than the heartwood; and some grades are vari-colored, being marked by contrasting color zones.

In strength, as in weight, Louisiana Red Cypress lies intermediate between the heavy and light pines. It is easy to work and finish; and is free from splitting or warping when properly dried. It has relatively few defects and yields a high percentage of flawless timbers or boards.

"Pecky" Cypress

This is a sub-grade having the characteristic "Pecky" appearance due to a peculiar fungus growth, to which the heartwood of some cypress trees is subject. The cross-section of the board looks honey-combed with holes, and the surface appears gouged.

This defect mars the appearance of the piece, but does not lessen the usefulness of the wood where resistance to decay is the prime factor. "Pecky" Cypress is strong enough for ordinary purposes and is an economical and serviceable lumber for posts and sill timbers in contact with the ground; for inexpensive outdoor construction, and for greenhouse equipment, like benches.



Ancestral home of the Parlange family in Pointe Coupee Parish, built in 1788 by Marquis Ternant. Native red cypress employed inside and outside, from sill to peak. Still used as residence after six generations of service.



"Pecky" Cypress is much in vogue for interior woodwork in picturesque homes where antique effects are desired.

Exterior Construction

Louisiana Red Cypress is pre-eminently fitted for use as siding, porch flooring, stepping, cornices, door and window frames—pergolas, trellises and arbors—tanks, well curbing, silos, fencing, barns and farm buildings generally. It is the standard material for good greenhouses and equipment; the heart grades are recommended for the entire framework, millwork and siding, also for tubs and boxes. The heart grade of Louisiana Red Cypress is widely used as seating and siding for stadia, grandstands and ball parks. "Pecky" Cypress excels for attaining rustic effects, as in park seats and lawn furniture.

"Pecky" Cypress is ideal for greenhouse benches, cold-frame sides, and compost boxes.



Dining room of the old Parlange house, shown in preceding illustration. All woodwork, including doors, casings, mantle, floors, cornice and ceiling, is of red cypress cut from the swamps on the estate nearly 150 years ago.

Painting

Louisiana Red Cypress takes and holds paint perfectly, and requires no special preparation of the surface. It resists the weather well and shows no surface discoloration.

Interior Woodwork

Louisiana Red Cypress is a valuable wood for interior trim, doors and paneling. It has a finely figured but comparatively straight grain; is easy to work and available in clear, wide size boards. It takes stains well and gives fine effects in natural finish. Since it is free from resinous substances, it makes an excellent base for enamel or flat paint. It does not appreciably warp or shrink when properly dried.

In large panels, as for doors or wainscots, it is distinctive either in natural finish or under popular imitative stains.

Grades

For inside work, the "A" Grade of Louisiana Red Cypress is recommended for select natural finish; the "B" and "C" grades are recommended for enamel and flat paint work.

For exterior purposes, the Clear Heart grade gives the finest results, as it will stand the severest exposure, besides taking and holding paint beautifully. But for the general run of outside painted work, one may choose in descending scale of quality and price among the grades "A" "B" "C" and "D" according to the character of the job.

Shingles

Louisiana RED Cypress Shingles, both sawn and hand rived, give superior service, besides being thicker and heavier than most other wood shingles. They are manufactured in dimension widths.

Lath

Louisiana Red Cypress lath run sound in quality, are easy to apply, have good nail holding power and properly dried, show no shrinkage or warping. Being non-resinous, they do not discolor plastered walls.

Information

Builders who have special problems in construction are invited to write us for additional information on the use of "The Wood Eternal" for their particular requirements.



For further details and literature, write to:

LOUISIANA RED CYPRESS BUREAU

513 Carondelet Street
NEW ORLEANS, LA.

Louisiana Swamp Tupelo (Nyssa Aquatica)

Manufactured by the Member Mills of the

513 Carondelet
Street

LOUISIANA RED CYPRESS BUREAU

New Orleans
Louisiana

PRODUCTS

Louisiana Swamp Tupelo Flooring, Mouldings and Trim.

Identity

Louisiana Swamp Tupelo is decidedly a "different" wood, which has been utilized in the building industry during recent years with increasing and amazing success. It should not be confused with gumwoods, as it is distinct from them, both in appearance and service qualities. The term, "bay poplar," sometimes applied to Tupelo, is not fully descriptive because Louisiana Swamp Tupelo represents a standard of manufacture as well as a species of wood.

The scrupulous care used in handling and stacking Louisiana Swamp Tupelo for seasoning becomes evident in greater utility and dependability of the finished material. Improved methods of production develop the utmost service value of the wood.

Builders are, therefore, advised to specify Louisiana Swamp Tupelo to insure completely satisfactory flooring, mouldings and trim.

Habitat

Louisiana Swamp Tupelo is native to the southern coastal swamplands and grows interspersed with Louisiana Red Cypress. It is a totally different kind of wood, however, having a dense, interwoven or "involved" grain, and a uniformly light color with a slight tinge of brownish yellow.

Properties

It is difficult to split even with an edged tool; and, as flooring, does not splinter, splinter or rough up under hard usage. It is remarkably free from defects of any character, being a fine clean, uniform wood that works up easily and finishes beautifully and, therefore, is ideal for trimwood.

It lacks the decay resisting properties of cypress, when exposed to weather or moisture, unless specially treated. But it is well suited and peculiarly valuable for its proper interior applications—in some uses being unrivaled for serviceability.

Industrial Floors

The tough, tightly matted fibre texture of Louisiana Swamp Tupelo produces a supremely durable wearing surface. Heavy trucking or traffic has the effect of packing down the wood fibre into greater firmness and smoothness.

Since it thus becomes practically callous to wear, it makes an economical, long-service flooring for factories, warehouses, machine shops, freight sheds, storage houses, manufacturing plants, industrial buildings and covered platforms generally. It is not, however, advised for outside platforms nor any construction exposed to the weather, unless creosoted or otherwise protected.



The magnificent Midland Valley Country Club, St. Louis, Mo., is floored with Louisiana Swamp Tupelo in living rooms, rest rooms and halls.



Residential Floors

Besides its hardy wearing qualities, Louisiana Swamp Tupelo has additional advantages which commend its use for fine flooring in homes, apartments, hotels, community houses and public buildings.

It has a uniformly light color, smooth grain and remarkably few blemishes. Consequently it takes the various stains and finishes with ease and beauty, insuring a fine appearance that endures, even under strenuous service.

The experience of users of Louisiana Swamp Tupelo fully verifies its superior service value as a fine flooring material.



Modern dinette in the new Hilltop Manor co-operative apartments at Washington, D. C.—trimmed with Louisiana Swamp Tupelo and finished with dark stain.

Club houses, churches, pavilions, as well as homes, laid with Tupelo floors, demonstrate its wearing quality and its ability to retain a lasting finish.

Miscellaneous Floors

The use of Louisiana Swamp Tupelo is suggested also for gymnasium floors, dance halls, skating rinks, assembly rooms, schools, churches, hospitals, sanitariums, office buildings and floors for special purposes where the service is exacting.

Mouldings and Trim

Louisiana Swamp Tupelo is extensively manufactured into mouldings and trim, and is rapidly increasing in demand on account of its evenness of grain, color and quality; freedom from defects and resistance to splitting; ease of nailing, and nail-holding power.

Its grain does not "raise" in the process of finishing, and therefore provides an exceptionally smooth surface that takes and holds enamels perfectly. It can be stained effectively, and is especially valuable where a highly glossed finish is desired.

Reliability

Perfect methods of manufacture in logging, working, grading, seasoning and handling have made Louisiana Swamp Tupelo a high quality product that is dependable in all its recommended applications. The excellent results which it assures in use have given it a preferred rating among experienced builders.

Louisiana Swamp Tupelo is becoming widely popular for fine interior trim and flooring, not only for its desirable qualities but also for its economy. An example of its use in big undertakings, where efficiency in construction is sought, is the Hilltop Manor co-operative apartment building recently erected in Washington, D. C., considered the finest in its class, which is trimmed throughout with Louisiana Swamp Tupelo.

Special Information

Architects, contractors, builders and home owners are invited to write us freely regarding their individual requirements with respect to any construction wherein Louisiana Swamp Tupelo may have economical application.

We shall be pleased to supply authentic data and special information covering the qualities, grades, uses, and give suggestions on the selection of grades for various applications and methods of painting and finishing.



For further details and literature, write to:

LOUISIANA RED CYPRESS BUREAU

513 Carondelet Street
NEW ORLEANS, LA.

OAK — The Ideal Wood For Interior and Exterior Trim

Oak for "Better Homes"

The tendency to build for today rather than for future satisfaction has been so often decried in recent years as to awaken many young couples embarking on their first great adventure of home-building to the sound logic of careful construction. Good homes mean good materials.

Oak is well within the reach of the moderate income. It is an investment the original cost of which becomes less each year compared to some other woods cheaper in first cost but really not in a class with Oak in appearance and lasting qualities. With Oak there are no warping doors and trim. Considering the important place of wood in your plans, the difference in cost is so little and the advantages so apparent as to make Oak by all means the preferred wood. Any mill-man, any contractor or architect, thoroughly conversant with the merits of Oak will recommend it above all others for "Better Homes."

Brown, Not Yellow

Oak finishes beautifully, *better*, in any color. That is one of its advantages. Present day decorators and craftsmen finish Oak in the beautiful rich brown "antique" or "Renaissance" effect of Old English furniture. This finish brings out the inherent, individual beauty of this wood and makes its use a decorative asset to any home. "Golden Oak" is no more representative of the modern charm of Oak than the styles of the "Gay Nineties," which introduced that effect, are typical of the modes and manners of 1928.

Stands Up Better

But rare beauty of appearance is not the only advantage of Oak. It is exceptionally strong and hard, the ingrained strength of centuries of slow growth. "Patriarch of trees as well as King," the ancient bards called the Oak.

Homes where there are growing, romping children need Oak, inherently strong and abuse-resistant. Architects specify Oak doors, knowing that less worthy woods soon show the dents of serving trays and sears of careless feet, which the tough texture of Oak absorbs. Oak front doors add a welcome and character achieved in no other wood.

Oak's endurance is eloquently reflected in the predominant popularity of Oak floors. It has never had a real rival in this field and it never will.

Improves with Age

The surpassing durability of Oak is more than a tradition. Old England's manors and cathedrals, the chateaux of France and museums throughout Europe and America show how the sturdy character of Oak smilingly braves the centuries. Known as a friendly, livable wood, like old friends, it improves with age, mellowing into a rich dark color that accents its charm.



English Cottages—Avoid Counterfeits

Correct architecture calls for Oak woodwork in English type homes. Oak for interior trim, panelwork or doors. Oak for stairs and beams, and Oak, of course, for the half-timbered outside effects, by all means. Ceiling beams add a picturesque note quite apropos in modern architectural adaptations. Where solid beams are not possible, built up effects with Oak planks achieve the desired effect.

Panelwork, or "Wainscot" as it was called, is increasingly popular. The distinction of panelwork may be enjoyed in moderate priced bungalows by paneling just one room, or using half or three-quarter panels or by simply panelling a fireplace.

Above all things, avoid counterfeit effects. Other woods cannot be given an Oak "finish" successfully. The effect of Oak, its individual beauty, is ingrained, bestowed by old Mother Nature herself. An imitation speaks for itself. You want no spurious note in your home. Enjoy the warmth and friendliness of Oak and its practical superiorities which have given it the title of "the sovereign wood."

Oak Brings in New Style in Furniture

With the revival of interest in Oak and renewed appreciation of its practical advantages has come a new style in furniture. "Renaissance Oak" is the typical American period, inspired by English Renaissance designs, fashioned



Oak woodwork finished in the rich brown "Renaissance" effect assures both superlative beauty, endurance and economy

to meet present-day architectural requirements, and finished in the soft, rich, beautiful brown effects characteristic of modern decorative schemes. A request addressed to Dept. X will bring a free copy of the beautiful brochure, "The Charm of the Sovereign Wood," which includes many beautiful interiors as well as a complete treatise on period furniture.

Remodeling

The Service Department of the Oak Service Bureau will be glad to advise with any home-owner, free of charge, interested in remodeling with Oak, installing panelwork, or using Oak in any manner. Call on us, we want to help you and the cause of Oak.

Oak for Charm and Livable Character—Furniture for Your Children's Children



For further details and literature write to:

Oak Service Bureau, Hardwood Manufacturers' Institute

Bank of Commerce Bldg.
Memphis, Tenn.

Inland Empire Lumber, Lath and Woodwork

Produced by Members of

WESTERN PINE MANUFACTURERS ASSOCIATION

510 Yeon Bldg.

PORTLAND, OREGON

MEMBERS' SALES OFFICES IN PRINCIPAL DISTRIBUTING CENTERS OF THE EAST AND MIDDLE WEST
Stocks Carried by Local Lumber Dealers and Planing Mills Everywhere

Products

PONDOSA PINE and IDAHO WHITE PINE LUMBER and re-worked products for any kind of building. Species-marked on end grain.

LARCH LUMBER and SMALL TIMBERS.

Also Red Fir, White Fir, Cedar and Engelmann Spruce Lumber.

Organization and Services

The WESTERN PINE MANUFACTURERS ASSOCIATION was organized twenty-one years ago, and its membership includes lumber mills in Washington, Oregon, Idaho, Montana and Colorado whose combined production totals nearly two billion board feet of lumber annually.

It operates as a service organization. To architects, builders, woodworkers and the general public it offers its facilities, gratis, in matters relating to the application and use of its products. For member lumber mills it aids in the perfecting of product through improvement of production methods, research, and adoption and maintenance of standards of grade, patterns and finished sizes. Architects are invited to bring their lumber problems to the Association.

Its individual member companies are also glad to furnish information about their products. A list of members will be forwarded promptly in response to any inquiry.

Seasoning, Milling and Grading

Each species of Inland Empire lumber produced by Association mills is thoroughly seasoned before shipment and is suitable for immediate use. Because the normal shrinkage of the wood has taken place in the air-drying yard or in dry kilns, and before surfacing, uniform sizes are assured.

Skilled workmen at efficient machines turn out lumber that is a credit to member companies. Sharp saws and knives cut this dry lumber to precise measurement and glossy finish, and make it possible for the mills to offer the architect good stock designs, in millwork items, that conform strictly to detail. Many stock designs in Inland Empire lumber are also offered by large millwork, sash, door, and frame factories, and special designs can be reproduced easily and economically in these woods by any good local millwork company.

This lumber is uniformly graded according to the rules of the Association and furnished in standard Association sizes that are American Lumber Standards with slight exceptions. Grading rules will be furnished architects, upon request.

Durability

Known instances of buildings erected of Pondosa Pine sixty years ago and longer are on file at the Association offices. Recent inspection of many of these buildings has shown material containing both heartwood and sapwood growth to be rot free after this long exposure in rigorous climate. Many boards are unpainted.

Idaho White Pine is genuine white pine whose remarkable durability is well illustrated by the many examples of white pine homes of Colonial days still standing in New England.

Larch is unusually rot-resistant, especially in places that put it in contact with the soil. It has proven its long life in such uses as ties and bridge timbers in railroad construction, and underground in Montana and Idaho mines as props, bracing and planking.

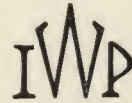
Pondosa Pine

The Pick o' the Pines



characteristics of different kinds of lumber, and to place upon each board the mill's guarantee as to workmanship and material.

Pondosa Pine (*Pinus ponderosa*) by the nature of its growth is best fitted for certain uses in building; the same is equally true of other Inland Empire woods. Pondosa Pine is the sash, door and window frame wood of America. The average log produces a high percentage of lumber from which can be obtained short clear cuttings, and its consumption, the largest of any species for this purpose, proves its practicability. Its upper grades or finishing lumber, and its closely graded common lumber answer practically all other needs in building, except house framing and finish flooring. Its physical properties and important uses place it in the soft textured white pine group of woods.



Idaho White Pine (*Pinus monticola*) is specified for highest quality woodwork installations. It is exceptionally well suited, because of its small tight knots, for knotty pine paneled interiors and in either clear or upper common grades for house siding, porch and cornice work and other exterior trim. Even for foundry patterns where wood requirements are most exacting, it has first call. It is genuine white pine. "The Pine Without a Peer," little more need be said.

Larch (*Larix occidentalis*) is the structural wood of the Inland Empire. Strong to a surprising degree for its moderate weight, it resists great shocks and stresses. In vertical grained pieces it is used for kitchen and store floors, and for other floors in a residence where hardwood is not specified. Probably the greatest use for Larch is for house framing and for all farm buildings. For natural finish interiors, and for beach or mountain cottages, its rich russet color and rather pronounced grain produce striking effects when stained.

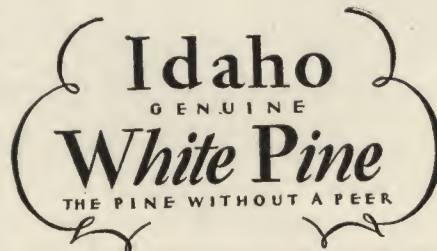
Advantages of Association-made Products

By specifying in all contracts calling for lumber that all material must bear the Association species mark, the architect insures his client against uncertain products. The member mills cherish their high reputation. The Association employs highly trained men to inspect regularly at its member plants to make sure Association standards are maintained. The integrity of the lumber mills and the Association are behind these marks.

Permanent Timber Supply

Despite the frequent rumblings in the press that the timber supply in this country may be depleted within a short time, the lumber mills in this Association are backed by sufficient reserves of virgin, old growth timber to last for many generations to come, and a perpetual timber supply is virtually assured. On the timber areas, privately owned, close utilization and reforestation are under way. Lumber mills operating in federal Government-owned timber are also observing strict regulations as regards the cutting and handling of the timber supply with thought towards the perpetuation of the industry in the territory. An architect can specify Inland Empire lumber with full assurance of replacement by the same materials many years hence, if desired.

Inland Empire lumber enjoys nationwide distribution. It is carried in stock or can be furnished by local lumber dealers in all parts of the United States in Association standard sizes and in any grade and quantity.



For further details and literature, write to:

WESTERN PINE MANUFACTURERS ASSN.

510 Yeon Bldg., Dept. 31
Portland, Ore.

SOUTHERN PINE



DURABILITY is unquestionably the most important property lumber can have and it involves much more than resistance to decay. Durability is the quality of being able to continue long in the same state. In lumber this means the ability to perform its intended function indefinitely. It means that lumber must resist mechanical wear without fatigue as effectively as it resists decay.

Unquestionable proof that Southern Pine meets every test of *durability* in its broadest sense is to be found in the results of more than 500,000 official experiments made in the United States Forest Products Laboratory at Madison, Wisconsin.

For almost three hundred years homes in this country have been built of Southern Pine. Many homes built of Southern Pine more than a century ago stand in perfect

condition today, eloquent witnesses to the strength of Southern Pine frames, to the hardness of Southern Pine floors, to the beauty of Southern Pine woodwork, and to the durability of Southern Pine siding.

Some of these homes have withstood many winds of hurricane velocity, thus giving further evidence as to the structural strength of Southern Pine and as to the value of proper construction. Even though a home is built of the strongest of structural woods—Southern Pine—it must be built right if it is to stand even for a generation. Incorrectly framed it will be as weak as its joints, not as strong as its timbers.

Every hurricane that sweeps a district gives proof of the stability of homes correctly framed of Southern Pine. During the building season of 1927, Southern Pine Association in cooperation with local



This is the type of Southern Pine home built in Miami, Fla., and other cities, in which were incorporated the fifteen points of good construction.



For further details and literature write to:

THE SOUTHERN PINE ASSOCIATION, New Orleans, La.

The Supreme Structural Wood of the World

organizations erected a number of houses in widely scattered cities to illustrate the points and economy of good construction.

No additional lumber or labor are required for a home that will stand as though anchored on a rock. All that is necessary is to put the lumber that is used together as our forefathers would have done.

An engineer's drawing, herewith, illustrates several of the points of safe and permanent frame construction. Notice how the sill (1) is anchored, bolted, to the foundation. The sub-floors (2) run diagonally and, on the different floors, at right angles to each other. There is corner bracing (3) and the braces are cut into the studs. The rafters (4) are anchored to the main frame. Other points are illustrated in a small book—Fifteen Points of Good Construction—that may be obtained by writing Southern Pine Association, New Orleans, Louisiana.

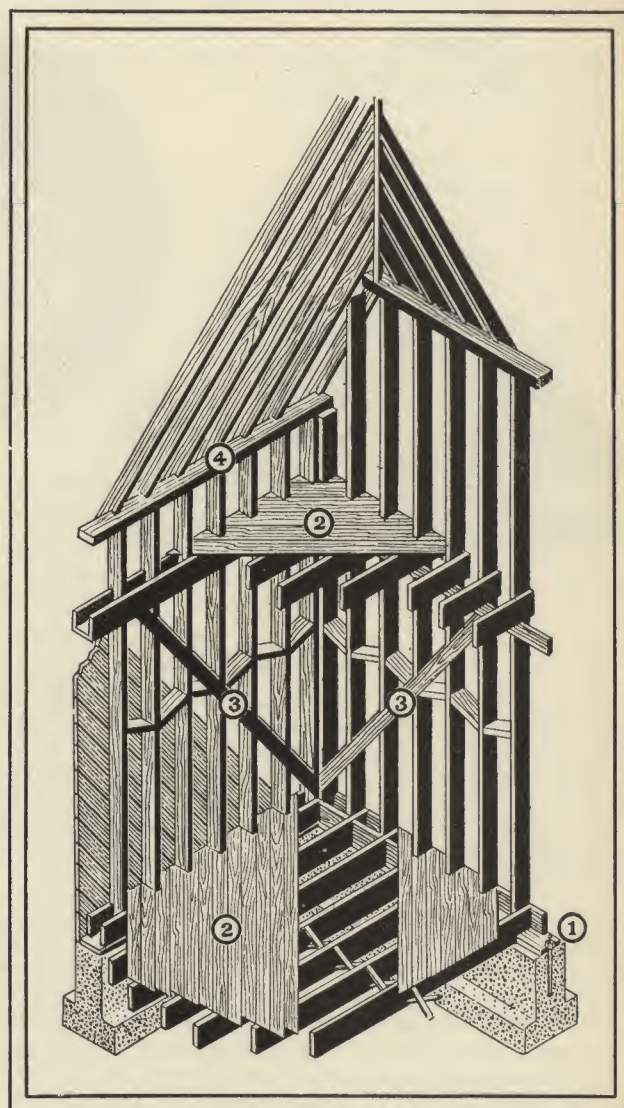
Probably half the wood used in home building in this country is Southern Pine. It is difficult to trace a piece of wood from saw mill to its final use, but it is known that nearly half of all planing mill products—sash, doors, general woodwork, blinds, etc.—are made of Southern Pine.

At any point east of the Rocky Mountains it is good practice, economically, to build homes of Southern Pine. Everywhere, with any wood, it is good practice to follow the fifteen cardinal points of good construction.

* * * *

The mills of subscribers to the Southern Pine Association are cutting just as fine virgin timber today as ever grew. The lumber produced is actually better than that of a generation ago because of improved mills, better machinery, more efficient drying, more modern methods of treating and handling lumber.

Many mills have adopted another practice that makes also for satisfactory use, by consumers, of this better Southern Pine lumber.



They trade-mark and grade-mark their lumber. As the idea is expressed in the publicity of the Association, "You can *tell* it by its trade-mark. You can *judge* it by its grade-mark."

The engineering department of the Southern Pine Association is maintained to aid all users of wood. Its knowledge and experience is available without cost to anyone.



For further details and literature write to:

THE SOUTHERN PINE ASSOCIATION, New Orleans, La.

"IMPROVED" O. G. FIR GUTTERS

A Product of
E. M. LONG & SONS



Cadiz REG. U. S. AND CANADA Ohio

Purpose

This gutter is excellently adapted for new construction or replacement purposes on all buildings where any type of gutter is required.



See how much "Improved" O. G. Fir Gutter adds to the appearance of this residence

Directions for Installing

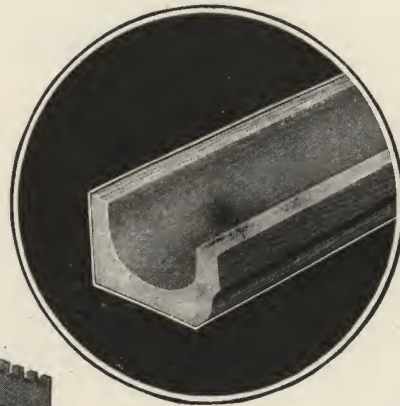
For architectural as well as practical reasons, it is recommended setting all gutters level. Architecturally—so that straight, horizontal lines will be retained. Practically—because water, always seeking its own level, will find its outlet at the leader spouts. One leader is sufficient for short gutters, but long lengths require two or more, depending upon the roof area to be drained.

Gutters can be set with a slight pitch towards the leader end, or in long lengths, each end near a leader can be sprung downwards slightly and fastened in that position. In joining two lengths, the ends should be cut bevel to fit closely, the joint cemented and fastened securely with two 3-inch brass screws through the bottom and two 3/4-inch brass screws at the top. Screw heads should be countersunk and puttied. The ends of gutters may be rebated for a distance of 1 1/2 inches on each side of the joint deep enough to hold sheet-lead flashing, which should be embedded in the rebate with elastic cement and tacked around the edges with 3/4-inch copper tacks.

Advantages

Because of three major advantages, "Improved" O. G. Fir Gutters are rapidly replacing metal gutters in present-day construction. These are advantages of greater attractiveness, durability and economy.

The trim, neat lines and correct architectural pattern on which "Improved" O. G. Fir Gutters are made add much to the exterior of any house. They lend an undeniable touch of beauty at the edge of the roof which a metal gutter can never give.



Material

"Improved" O. G. Fir Gutters are made from durable Douglas Fir—a clear, soft, old growth yellow fir. It is the best material for gutters available today.

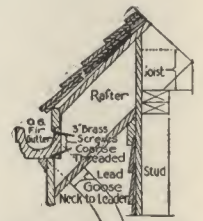
A second great advantage is their long-wearing quality. The elements, acids, fumes, etc., causing corrosion and disintegration on metal gutters cannot affect "Improved" O. G. Fir Gutters. They do not expand or contract. They have shown they will wear the life of the house with a minimum of attention or repair.

The economy of such service is evident. There is no need for replacement, and no upkeep other than painting. The first cost is no more than for metal, so that the ultimate saving over galvanized iron, copper and best tin gutters gives "Improved" O. G. Fir Gutters their third important advantage.

Stock Sizes and Weights

"Improved" O. G. Fir Gutters are manufactured in three convenient sizes: 3x5 inches, 4x6 inches, 5x7 inches, in lengths of ten to forty feet.

The weights per lineal foot are 1 1/2 lbs., 2 lbs. and 3 lbs., respectively. These sizes supply sufficient range to meet the needs of any type of building.



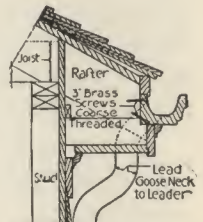
Detail of "Improved" O. G. Fir Gutter with open rafters

Distribution

"Improved" O. G. Fir Gutters are sold through retail lumber dealers. Upon your inquiry we will be glad to furnish the name of our dealer nearest you, and he will give you prompt service on whatever amount or size you specify.

Get Our Booklet

You will be interested in reading our booklet, "Once in a Lifetime." It contains photographs, architect's details for correct installation and complete description. Send for your copy now.



Detail of "Improved" O. G. Fir Gutter with boxed cornice



For further details and literature, write to:

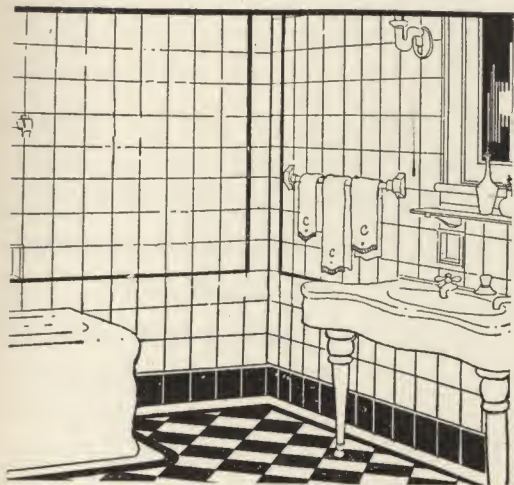
E. M. LONG & SONS, CADIZ, OHIO

(The Pioneers of Improved O. G. Fir Gutters)

Sheetile—Tile Walls at Wallboard Cost

Made by
HAGER WALL TILE CORPORATION
Lansing, Mich.

**NON-POROUS, NON-WARPING, WATER AND
MOISTURE-PROOF**



Product

SHEETILE—a fibre board, made under a patented process, and which is nailed, sawed and planed the same as lumber.

Purposes

SHEETILE has its place in all types of buildings—garages, office buildings, public institutions, comfort stations, gymnasiums, apartments, hotels, show windows, stairways, entrances, restaurants, barber shops, beauty parlors, doctors' and dentists' offices, dairies and many other places where a permanent, sanitary, easily cleaned and chastely beautiful finish is desired at a low cost of installation and upkeep year after year.

Decreases Building Costs But Increases Sales Value

SHEETILE means a completely insulated wall with a tile finish applied in ONE OPERATION. It is a wall that is absolutely waterproof, non-porous and non-warping. Its glistening finish is obtained, not with paint or varnish, but by a special process of glazing during its manufacture. Because of this process, S H E E T I L E finish simply CANNOT flake, crack or peel off, therefore it affords a permanent finish—one that will last practically forever. Estimate for yourself the annual saving in re-decorating costs, for example, of the lower walls in a stairway whose constant use requires a refinishing practically every year. Imagine the beauty



of such a stairway and the ease with which that cleanly beauty can be maintained the year round merely by wiping with a damp cloth.

SHEETILE is sufficiently elastic to adapt itself to the settling of a new building and will show no unsightly cracks in the corners as does plaster almost invariably. It can

be applied over old walls and is ideal for such added rooms as breakfast nooks, sun parlors or bathrooms. A S H E E T I L E panel extending



around the lower walls of a garage produces an effect that is almost unbelievable at a cost surprisingly low. For such purposes as store fronts and show windows SHEETILE is attaining wide popularity.

SHEETILE is easily applied, like wallboard, and any good carpenter can do a thoroughly satisfactory job quickly and at low labor cost. It is sold only through lumber dealers, any one of whom gladly will show it and explain its many advantages and the manner of its application, or we will mail full details and sample on request.

Two Comments Typical of Thousands in Our Files

Townsend-Dailey Co., Inc., Contracting Engineers, Ypsilanti, Mich.:

"We have completed the installation of Sheetile in ten bathrooms of the Beyer Apartments and it meets with the hearty approval of the owner. In substituting Sheetile for porcelain we have effected a very considerable saving and have found the material just as satisfactory."

Alex. J. Groesbeck,
Dime Bank Building,
Detroit, Mich.

"The job of 'Sheetiling' you recently completed in the Blackstone Building for me is very satisfactory. In fact, it is far better than I expected. In appearance and workmanship it certainly has done the trick, and I thought you ought to know about it."



For further details and literature, write to:

HAGER WALL TILE CORPORATION, Lansing, Mich.

WRIGHT RUBBER TILE

Manufactured by

WRIGHT RUBBER PRODUCTS COMPANY

Racine, Wisconsin

Products

Wright Rubber Floor Tile; Stair Treads; Cove Bases; Paving Block.

Wright Rubber Floor Tile and Paving Block

Uses—Wright Rubber Tile has many exclusive advantages for flooring homes, banks, churches, offices, hospitals, hotels, restaurants, stores, theaters and all other public or semi-public buildings where traffic is great and appearance important.

It finds wide use in remodeling as well as in new installations, since it can be laid over the present floors.

In homes, it is ideal for kitchens, breakfast rooms, dining rooms, bathrooms, halls, pantries and sun rooms.

Wright Industrial Tile, or Paving Block, is used in manufacturing plants, warehouses, central stations, canneries, creameries, gymnasiums, armories, zoological gardens, stables, garages; as pavement for bridges, driveways, sidewalks, steam and ferryboat decks.

Long Lived

Under all conditions of service Wright Rubber Tile has exceptional wearing qualities. In 1924 a section of the Michigan Ave. bridge, Chicago, was laid with Wright Rubber Paving Brick.

Under extremes of weather and traffic conditions this modern material stood out superior in wearing qualities to any other paving. After almost three years test under grinding traffic, the contract for paving the entire bridge was awarded to Wright Rubber Tile. Similar contracts have since been placed in Chicago and other large cities.

Qualities

Wright Rubber Tile and Paving Block is a composition of rubber and other wear resisting materials. Each block is cured under

330° F. of heat and 2,500 lb. per sq. in. by hydraulic pressure. It is not affected by extremes of temperature ranging from 40° below zero to 110° or higher in the sun. There is no apparent contraction or expansion—the corners stay down.



The "trademark cut" represents the type of Wright Rubber Tile used for paving and industrial purposes. It is made with interlocking flanges, provided with countersunk holes for nailing to wood or cinder concrete bases. Wright Rubber Tile for homes, stores, etc., is supplied without the flanges. It is laid with flush-butt joints.

STOCK SIZE

| | | | |
|----------|---------|----------|----------|
| 4 x 4" | 6 x 6" | 8 x 8" | 9 x 9" |
| 12 x 12" | 9 x 18" | 16 x 24" | 18 x 18" |
| 18 x 36" | | | |

THICKNESS: $\frac{3}{8}$ ", $\frac{1}{4}$ ", and $\frac{3}{16}$ "
STAIR TREADS, in 42" lengths. COVING, in 42" lengths.
All in plain or mottled colors in great variety. Send for color chart.

For handsomely colored examples of ideal Wright Rubber Tile uses, and for all other particulars, address:

HOME BUILDERS CATALOG

WRIGHT RUBBER PRODUCTS CO., Racine, Wis., U. S. A.

See Next Page

Wright Rubber Tile—(Continued)

Wright Rubber Tile is non-porous, non-absorbent, odorless. With joints close and sealed with insoluble cement, it makes an ideal sanitary floor.

Colors and Pattern Arrangement

All colors are permanent, as they permeate entire thickness. Plain, mottled or grained effects may be had in extensive variety.

Color possibilities and pattern arrangements of field and border are practically unlimited.

Standard Sizes

Standard size floor tile are 4 x 4", 6 x 6", 8 x 8", 9 x 9", 12 x 12", 9 x 18", 16 x 24", 18 x 18", and 18 x 36". Borders furnished in 18x36" for homogeneous and Cushion Back, and in 12 x 24" for 18 x 18" for Pavement and Terrazzo.

All base comes in 42" lengths.

Heavy Base—Cove or straight in 5" and 6" heights.

Heavy Base—Straight—8" height.

Heavy Base—Cove—9" height.

Light Coving—5" and 6" heights.

Shoe Moulding and Wainscot Capping 42" lengths.

Stair Treads—42" x 12" with moulded rubber nosing attached smooth surface.

Lap Tile—6" x 6" x 1/4" only.

Thresholds—42" lengths—3" x 3/4".

Thresholds—42" lengths—5 1/2" x 1 1/2".

Plinth Blocks—4 1/4" x 6 1/4" x 7/8".

Plinth Blocks—3 7/8" x 6 1/4" x 7/8".

Thickness of floor tile 3/16", 1/4" and 3/8". Wright Rubber Blocks for paving are furnished in 1/2", 7/8" and 1 1/4" thicknesses 6" wide and 12" long. Made in smooth and several types of corrugated surfaces.

Wright Rubber Stair Treads

For long wear and safety. May be had with either smooth or corrugated surface to be used with or without brass nosing. Can be both cemented and nailed. Comes in 3-ft., 6-in. and 18-in. lengths, 12-in. wide. Can be applied over new or old stairs.

Cost of Tile and Laying

Costs of Wright Rubber Products vary with the market conditions, labor charges, transportation and many other factors differing geographically from time to time. We gladly furnish prices and estimates. Costs of laying depend upon local conditions, but Wright Products are installed quickly and easily. Standard specifications for laying will be supplied promptly to any dealer, contractor or architect on request.

Engineering Service

Our engineering department will furnish information about your particular problem, whether it be for bridge, driveway, industrial plant, public building or home. Write us.

For handsomely colored examples of ideal Wright Rubber Tile uses, and for all other particulars, address:

WRIGHT RUBBER PRODUCTS CO., Racine, Wis., U. S. A.

HOME BUILDERS CATALOG

W. & J. SLOANE LINOLEUM

Made by

W. & J. SLOANE MFG. CO.

Trenton, N. J.

Sole Selling Agents

W. & J. Sloane, 577 Fifth Ave., New York

SALES OFFICES AND WAREHOUSES:

Baltimore
Boston
Philadelphia
Detroit
St. Louis
Chicago
Dallas
Denver

SALES OFFICES AND WAREHOUSES:

San Francisco
Los Angeles
Portland, Ore.
Seattle
*Atlanta
*Cincinnati
*Houston
*Kansas City

*Warehouse only

Practical Advantages of Linoleum Floors

Linoleum floors have many practical advantages which commend them to the home builder. Among the most important of these are the following:

1. *Economical.* The first cost of a linoleum floor is generally quite low in comparison with hard wood and other floorings used in the home. This is particularly the case when linoleum is included in the plans and laid over the sub-floor. Yet maintenance cost is also very low because linoleum requires no costly refinishing operations.
2. *Durable.* A floor of good linoleum, well laid, will last for many years. It will resist the hardest kind of service wear.
3. *Germ-proof.* Good linoleum has a dense, compact body and a smooth surface. It has no cracks or pores to collect and hold dust and germs. That is why it is so often specified for hospital floors.
4. *Easy-to-clean.* Linoleum lightens the task of the housewife. Under ordinary circumstances cleaning reduces itself to an occasional wiping with a damp mop. An occasional waxing is beneficial but not essential.
5. *Easy-on-the-feet.* Due to its ingredients of cork and linseed oil, linoleum has great elasticity and resiliency. It is comfortable to walk on since it absorbs the greater part of the impact which jars the human system with each step.
6. *Cool in summer, warm in winter.* Linoleum is one of the finest insulating materials. It helps to keep the cold out in the winter and the heat in the summer.



In this period living room the patterned linoleum floor provides an authentic setting for notable furniture.

The Modern Use of Linoleum for Decoration

While its practical advantages have made linoleum more and more popular for service floors, recent years have shown a marked trend toward its use for decorative effects in other rooms in the house.

The principal reasons for this trend are (1) a growing appreciation of the floor as the foundation of a decorative scheme, and (2) the introduction of beautiful patterns and colorings.

While linoleum patterns remained in the "oil-cloth" stage decorators and architects could not use it except for service floors. The modern patterns, however, offer opportunities for decorative effects that cannot be achieved at similar cost with any other material.

Kinds of Linoleum Made by W. & J. Sloane

The line of W. & J. Sloane Linoleum offers home builders a wide selection both in patterns and grades. There are grades and prices suitable for every use and every purse.

The three principal classes of linoleum made by W. & J. Sloane are *inlaid*, *plain* and *printed*. Inlaid linoleum is patterned goods with the colors of the pattern running clear through to the burlap back. Thus the pattern cannot be worn off. In plain linoleum, too, the color runs clear through, but as the name implies there is no pattern. Printed linoleum has a plain linoleum base with a pattern in oil paints imbedded into the surface. With some special care such as varnishing, the pattern of W. & J. Sloane Printed Linoleum will wear for years.

In each of these three principal classifications there are different kinds and grades. In *inlaid*s, for example, there are *marble tiles*, geometric patterns having the appearance of real marble, *straight line inlaid*s, also geometric patterns in a plain or mottled effect, *Clearline Inlaid*s, exclusive with Sloane, made by a



For further details and
literature, write to:

HOME BUILDERS
SERVICE DEPT.

W. & J. SLOANE, 577 Fifth Ave., New York City

W. & J. SLOANE LINOLEUM

process which produces a softer and warmer effect than the straight-line inlaids, and *Indented Tile Inlaids*, made by a special Sloane process which picks out the pattern in relief. These different grades range in thickness from 5/64 of an inch to 1/8 of an inch and vary correspondingly in price to meet every need.

Included in the *plain* linoleum category are Battleship Linoleums, a special type of plain linoleum made for heavy service. Battleship linoleum is also made in several gauges in accordance with the standard specifications of the U. S. Navy. Independent laboratory tests show that W. & J. Sloane Battleship Linoleum is far superior to these Government standards. Plain linoleum also includes Jaspés, a two-toned effect, made in several gauges and also in rugs.

In addition to these various linoleums W. & J. Sloane also makes a lower priced floor material known as *Felt-Base*.



Linoleum is both practical and decorative for dining rooms. It is inexpensive to install and easy to keep clean.



Sun rooms become even more bright and cheery with patterned linoleum floors. The pattern shown in the illustration is a two-toned tile effect.

Where to Use Linoleum

Generally speaking, linoleum should be carefully considered as flooring both in new construction and in remodeling or redecorating operations. In the former it may be laid over sub-floors; in the latter it can be satisfactorily laid over old floors.

In *service* rooms such as the kitchen, pantry, bathroom, halls, laundry, billiard room, etc., linoleum has practical advantages, noted above, which commend it above all other floors.

In other rooms in the house, decorative features as well as practical advantages should be considered. Linoleum is now particularly favored for sun-rooms where its bright coloring adds to the cheerful appearance such rooms should have. It is also popular for bedrooms where its ease of cleaning and its insulating qualities are added to its decorative qualities. W. & J. Sloane also make many patterns suitable for front halls, dining rooms, living rooms, etc.

How to Get the Best Decorative Effects With Linoleum

In order to get the best decorative results with linoleum one of the most important things to consider is the choice of pattern. Do not select a large pattern for a small room or vice versa. If choosing linoleum for a room with a brightly patterned wall paper it is better to select a plain color or a quiet duo-toned effect for the floor. If walls are to be plain or have a "quiet" design, choose a patterned floor.



For further details and literature, write to:

HOME BUILDERS SERVICE DEPT.

W. & J. SLOANE, 577 Fifth Ave., New York City

W. & J. SLOANE LINOLEUM



Another example of an interesting sun room. The floor in this case is an Indented Tile Linoleum which gives the floor an embossed effect of real tile.

Whether plain or patterned linoleum is used, the general effect is generally enhanced by using a border, generally a plain color. Unusual effects are obtained with black borders used with patterned linoleums. The width of the border depends somewhat on the size of the room.

Fully competent advice on this subject can be obtained from W. & J. Sloane Linoleum dealers, or directly from our Service Department mentioned below.

Importance of Good Laying

Wherever possible it is better to employ a professional layer for linoleum, for the satisfaction given by a linoleum floor depends considerably on the way it is laid. Linoleum, in order to give its fullest service, should be cemented to the floor. In this way it becomes a permanent part of the floor and will lay smoothly.

On account of the shrinking and swelling of wood floor boards, the use of Builder's Deadening Felt before laying linoleum is recommended. The felt laid lengthwise across the boards, but jointed and cemented to the floor with linoleum paste gives the best results. The linoleum is then cemented to the floor, the strips running parallel with the felt.

In laying linoleum over a smooth cement concrete floor, *the use of deadening felt is not essential.*

For the benefit of builders and contractors in localities where good laying service cannot be obtained, we have prepared full laying instructions supplied upon request.

The Cost of Linoleum Floors

While it is impossible to give here any accurate costs of linoleum floors, which vary according to grade and distance from the mill, a rough idea can be given.

Including the cost of laying, genuine linoleum floors can be installed at a cost ranging from \$1.00 per square yard, or possibly slightly less, to \$4.00 or \$4.50 per square yard. The former figure would be for a light grade of printed linoleum. The highest figure would be for the heaviest and most expensive grade of marble tile inlaid laid by the finest method. A very satisfactory installation of a good, long-wearing grade can generally be obtained between a range of \$2.50 and \$3.50 per square yard.



For large living rooms an unusual effect can be obtained with large patterns in Marble Tile Linoleum. The colorful floor in this photograph provides an interesting foundation for an attractive color scheme.



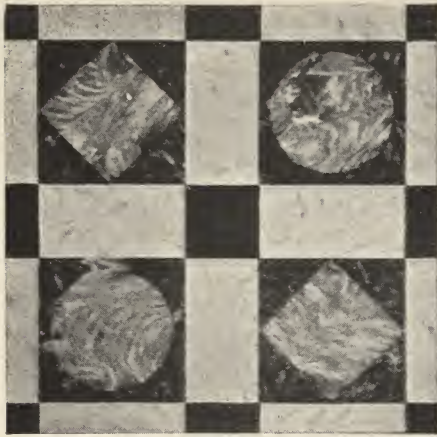
For further details and literature, write to:

HOME BUILDERS SERVICE DEPT.

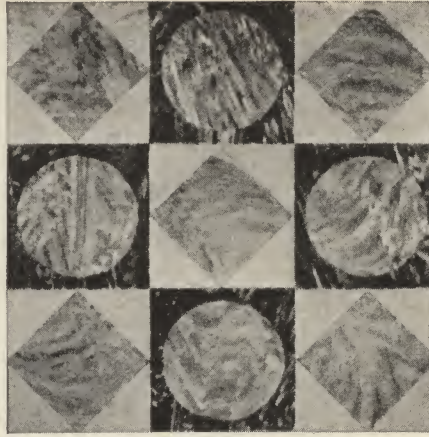
W. & J. SLOANE, 577 Fifth Ave., New York City

W. & J. SLOANE LINOLEUM

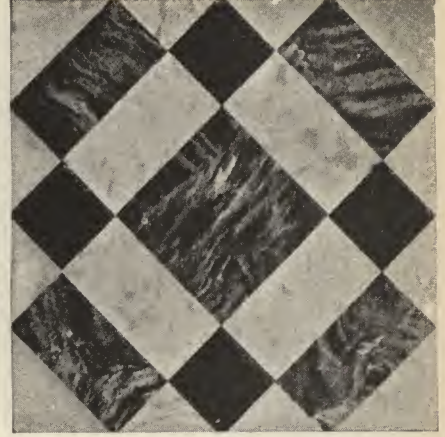
A Few Examples of Authentic Inlaid Linoleum Patterns



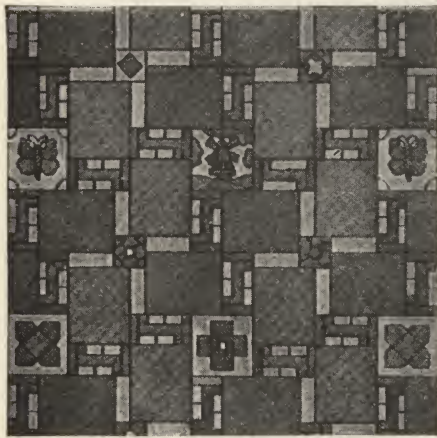
Pattern No. 120
Colors: Black, cream and terra cotta.



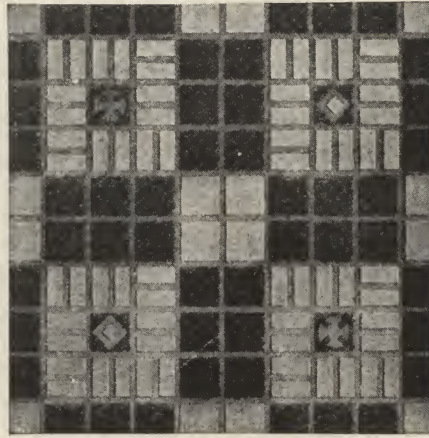
Pattern No. 500
Colors: Blue, gray, cream and brown.



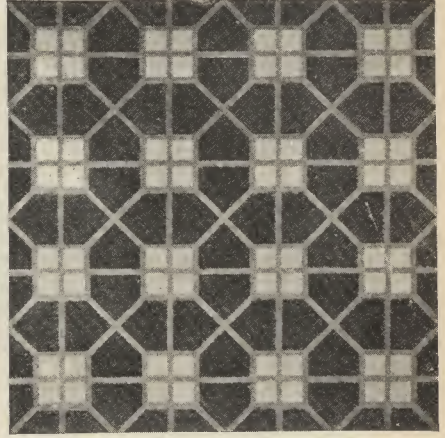
Pattern No. 550
Colors: Black, brown and cream.



Pattern No. 980
Colors: Light blue and 2 shades of green.



Pattern No. 1040
Colors: Blue, gray and white.



Pattern No. 1280
Colors: Green, gray and white.

Sloane Patterns

For 85 years the house of W. & J. Sloane has stood for leadership in the quality and style of all types of floor coverings.

The patterns included in the line of W. & J. Sloane Linoleum are all original, authoritative creations of Sloane designers. Their wide range of designs and colorings offer full opportunity for achieving charming interiors.

A few examples, in black and white, are shown on this page. Neither they nor the accompanying photographs, however, do them justice since they convey no impression of the colorings.

A full selection of Sloane patterns, in color, will, however, be sent to any contractor on request.

Where to Buy W. & J. Sloane Linoleum.

W. & J. Sloane Linoleum is sold and laid by leading department stores, furniture stores and linoleum contractors throughout the country. Any Sloane dealer is prepared to assist builders or contractors at any time in choice of patterns, estimating yardage required from plans, supplying estimates of cost, etc.

Special Service to Builders

We maintain a special service department to assist builders and contractors. You can call upon this department to estimate from plans the yardage required, to recommend suitable patterns or grades or to answer any special inquiries relating to linoleum floors. Address your inquiries to Home Builders Service Dept., Linoleum Division, W. & J. Sloane, 577 Fifth Avenue, New York City.

Ask for Any of These Service Booklets

Any or all of the following will be sent to you upon request:

1. Pattern Book, showing all patterns in the Sloane line in color.
2. The Modern Note in Decoration—a booklet in color on the decorative uses of linoleum.
3. Laying Instructions—full directions on the proper laying of linoleum.
4. Quality Samples—a set of samples of the different grades of linoleum made by Sloane.

Address request to Home Builders Service Department, Linoleum Division, W. & J. Sloane, 577 Fifth Avenue, New York.



For further details and literature, write to:

HOME BUILDERS SERVICE DEPT.

W. & J. SLOANE, 577 Fifth Ave., New York City

Northern Hard Maple Flooring

Maple Flooring Manufacturers Assn.
1799 McCormick Bldg., Chicago, Ill.

Characteristics

Northern Hard Maple is dense, strong, hard-fibred, extremely durable. It is free from splintering and slivering. It polishes under friction in a way that increases its wearing quality. The grain is close—sometimes curly or birdseye. The color of the heartwood is brownish; the sapwood is much lighter. The many advantages of Northern Hard Maple make this flooring ideal for residential use.

Wearing Qualities

Once laid, a Northern Hard Maple floor provides a one-piece area of permanent smoothness because each piece is side and end matched to perfection. The friction of feet and the moving about of furniture only make Maple smoother and smoother with time. Thousands of practical tests show that this unique flooring material actually outwears stone.

Comfort

Despite its amazingly hard and durable structure, Northern Hard Maple provides a warm, dry, comforting effect beneath the feet. It is particularly resilient—provides a cushioning surface which reduces muscle weariness.

Sanitation

Due to its permanently smooth surface, Northern Hard Maple is an exceptionally easy flooring material to keep clean. Its tight-grained structure offers no catch-alls in which dirt and dust can collect. A sweep of a brush, and a Maple Floor is as clean as new.

Color and Beauty

On the opposite page are described the beautifying effects of Northern Hard Maple floors. MAPLE FLOORS IN COLOR offer a combination for color harmony and service such as has never before been possible in the flooring field.

Standardization

MFMA Maple flooring is made to accurate specifications and this accuracy is attained by the use of standard gauges. The Official Inspector of the Association visits from time to time the mills of the members of the Association to inspect the mill work of their flooring and to see that the grades established and standardized by the Association are being maintained.

The trade-mark **MFMA** on Northern Hard Maple flooring signifies that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Assn., whose members must attain and maintain the highest standards of manufacture, and adhere to manufacturing and grading rules which economically conserve this remarkable wood. This trade-mark is for your protection.

MFMA Grading Rules

MFMA flooring is sold in standard grades, described in accurate detail in a book of Grading Rules

which may be had on application to the Maple Flooring Manufacturers Assn.

Standard Measurement

Flooring $\frac{1}{2}$ -inch and thicker all faces, is measured $\frac{3}{4}$ -inch waste for matching.

Flooring $\frac{3}{8}$ -inch ($\frac{1}{32}$ -inch) thick, all faces, is measured $\frac{1}{2}$ -inch waste for matching.

Jointed flooring, all thicknesses and faces, is measured $\frac{1}{2}$ -inch waste.

Thicknesses and Faces

MFMA First, Second and Third Grades Tongued and Grooved Flooring

| Standard Thickness | | Faces or Widths | | | |
|---------------------|-------------------|-------------------|------------------|------------------|------------------|
| | $\frac{25}{32}$ " | $1\frac{1}{2}$ " | 2" | $2\frac{1}{4}$ " | $3\frac{1}{4}$ " |
| Special Thicknesses | | | | | |
| $\frac{33}{32}$ " | $\frac{41}{32}$ " | $\frac{53}{32}$ " | 2" | $2\frac{1}{4}$ " | $3\frac{1}{4}$ " |
| $\frac{3}{8}$ " | $\frac{1}{2}$ " | $\frac{5}{8}$ " | $1\frac{1}{2}$ " | 2" | $2\frac{1}{4}$ " |

Jointed (or Square Edge) Flooring of $\frac{25}{32}$ " and $\frac{33}{32}$ " thicknesses is made in $2\frac{1}{2}$ " and $3\frac{1}{2}$ " faces.

Various Uses of Faces

Maple is made in a variety of faces (widths) to fit each type of use. Those most commonly used in homes and apartments are the $2\frac{1}{4}$ " and 2" faces.

There is a growing tendency among home-builders, however, to use the wider ($3\frac{1}{4}$ ") or narrower ($1\frac{1}{2}$ ") faces, where certain special effects are desired.

For Colonial Homes—a wider face. The use of $3\frac{1}{4}$ " face flooring is particularly desirable in the Colonial home since this face reproduces the wide flooring of the quaint old dwellings of a century past. The $3\frac{1}{4}$ " face flooring, moreover, can be laid more rapidly and with less labor than the narrower faces.

For Dainty Effects—a narrower face. For rooms where an effect of daintiness is desired, the $1\frac{1}{2}$ " face is gaining in favor. The narrowness of this face brings the sort of individual beauty so often found in objects finely made.

A New Floor over an Old. The most generally used thickness for Maple flooring in dwellings is $\frac{25}{32}$ ". However, there is a special "thin" flooring which can be laid right over an old floor, bringing new beauty as well as added value to the home.

This is the $\frac{3}{8}$ " thickness. Such a floor can be laid without disturbing doors or woodwork. It is matched on sides and ends and all nailing is concealed.

Further Information

Full information on the installation and maintenance of Northern Hard Maple flooring may be obtained from Maple Flooring Manufacturers Assn., 332 South Michigan Ave., Chicago, Illinois.

Guaranteed Floorings

The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use.

MFMA



For further details and literature, write to:

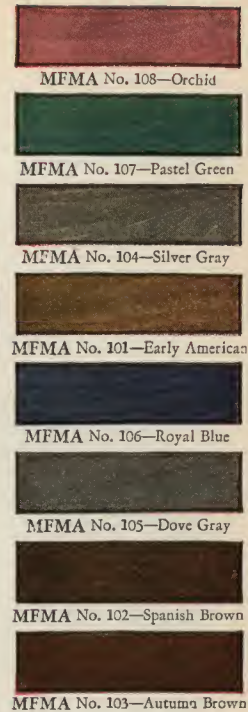
Maple Flooring Manufacturers Association

1799 McCormick Bldg.
Chicago, Illinois

Maple Floors in Color!



Side and end matched to perfection—Maple makes a one-piece floor of lasting beauty.



Standard finishes shown, made only by the Marietta Paint & Color Co., Marietta, Ohio.

THE charm of color . . . combined with the lasting comfort and homelike atmosphere that only a fine hardwood floor can bring . . . this is the marvelous new opportunity Northern Hard Maple Flooring offers you for every room in your home.

With fadeless penetrating stains recently developed, which you, yourself, or any painter or decorator can apply, it is now possible to produce permanent colors in Northern Hard Maple floors.

Any tone you choose! From light, cool green to deep, mellow brown . . . from delicate blue to rich, rare ebony. And with this coloring, the subtle grain of the wood develops a distinctive beauty never before seen in any floor.

Maple has long been known to be the smoothest, most resilient and most enduring of all the better flooring materials. With this new element of color added, it becomes at once the outstanding flooring for residential use.

Think, then, of the comfort and cheer you will add to your home by flooring bedrooms, living room, dining room, kitchen and hallway with Northern Hard Maple. Think, too, of the value modern Maple floors in color will add to your home in future years.

Whether you are planning to build or refloor, you can install Maple floors at moderate cost. Write for the free illustrated booklet, "The New Color Enchantment in Hard Maple Floors."

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1799 McCormick Building, Chicago, Illinois

Guaranteed Floorings

MFMA The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture, and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade mark is for your protection. Look for it on the flooring you use.

Floor with Maple



For further details and literature, write to:

Maple Flooring Manufacturers Association

1799 McCormick Bldg.
Chicago, Illinois

IXL ROCK MAPLE FLOORING

Cinderella of the Floors—The Sunlight Wood

Manufactured by

WISCONSIN LAND & LUMBER CO.

Hermansville, Michigan



Portraying Recent Color Development of Significance—



The newest floor treatment brings back a bit of yesterday—tomorrow—



One of Eighteen Practical and Beautiful Hard Maple Finishes.

The Finest Milled Flooring in the World

- Full Back Construction
- Non-Cupping
- Water Tight and Wedge Matched

Plus

Wonderful New Color Features

Address—*Division of Publicity and Service* for the color book—“Revealing the Hidden Beauties of Hard Maple.”



For further details and literature, write to:

WISCONSIN LAND AND LUMBER CO.
Manufacturers of Flooring Excellence for 40 Years

HERMANSVILLE
MICHIGAN

Hardwood Floors—Domestic and Foreign Woods

SQUASH COURTS

Manufactured by

INDIANA FLOORING CO.

(Main Office, Factory and Warehouse)

234 Rider Ave., New York City

BRANCHES

Washington, D. C.—Sales Office and Warehouse, 2500 9th Street, N. E.
New Haven, Conn.—Sales Office and Warehouse, 161 Day Street
Charlotte, N. C.—Sales Office and Warehouse, West First and South Cedar Streets
Philadelphia, Pa.—Sales Office, 1512 Walnut Street
Newark, N. J.—Sales Office, 11-13 Coes Place
Memphis, Tenn.—Sales Office, 18 Auction Street
Reed City, Mich.—Sales Office and Maple Flooring Plant
Coal Grove, Ohio—Sales Office and Oak Flooring Plant

Products and Service

Finished wood flooring, including domestic woods, as Oak, Maple, Pine, Beech, Birch and various cabinet woods; imported woods as Teakwood, Koa Wood, Mahogany, Yalapa, Tigerwood, Mahajua, Turkish, Italian and Circassian Walnut.

Parquetry and Marquetry flooring in solid and veneered woods, in wide planks and special architectural designs.

Squash courts designed and installed.

Facilities

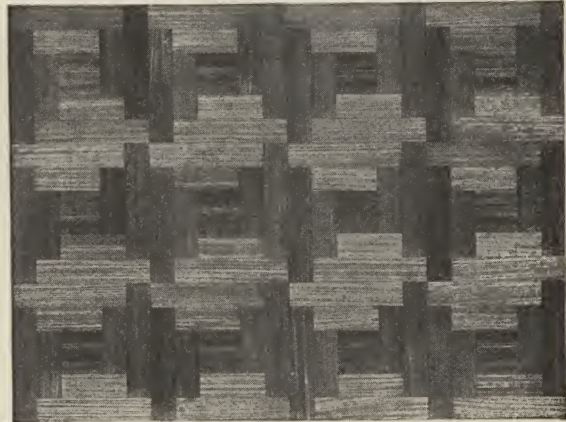
Manufacturing. New York. A factory devoted entirely to the manufacture of the higher grades in parquetry, marquetry, wide plank and special design flooring in both solid and veneered woods.

Reed City, Mich. A factory with a capacity of fifteen million feet annually, of maple, beech and birch flooring, and also producing specially manufactured material for squash court work.

Coal Grove, Ohio. Produces twelve million feet annually of soft textured Appalachian Oak flooring in the regular strips and in parquet sizes. Also produces the finer floors in wide planks and special designs.

Distributing. At the New York warehouses three million feet of the most diversified stock of hardwood flooring in the country is carried. The Washington warehouse has a constant stock of three quarters of a million feet, and the Charlotte, N. C. and New Haven, Conn., warehouses carry approximately half a million feet of various kinds, sizes and grades. Deliveries by truck and l.c.l. shipments by freight can be made from any of these warehouses on short notice, while both carlot and l.c.l. shipments are available at all times directly from the Reed City and Coal Grove plants.

Installation. A complete organization to handle contracts for laying and finishing hardwood floors anywhere is maintained. Only skilled mechanics who have specialized in floor work are employed. This department is equipped with the most modern machinery and special work of any kind can be handled.



Teakwood Design Floor of Mahajua Wood

In recent years this wood has met with great favor for floors, and is especially well suited for residential work on account of its beauty of color and grain, which cannot be matched in any other wood by staining and because of its inherent oily quality which makes it practically impervious to dampness or atmospheric conditions. It is manufactured both in wide planks and special designs, all of veneer construction.

Wide Planking

The use of wide planks or boards for flooring is a reversion to the old type so popular in early English and French architecture. The best form of construction is of veneers on frame backing to prevent twisting and cupping. These planks are often laid with open joints to better give an appearance of age. This style of floor is adaptable to any domestic or foreign wood and lends itself very advantageously to any scheme of color or design. It is the very highest type of floor construction. Also made of solid boards.

Parquet and Design Flooring

There is practically no limit for the development of a pattern to harmonize with some individual requirement or distinctive architectural scheme. Any pattern or particular design can be made to fit a required space. The conventional designs most popular include herringbone, basket weave, parquet squares, and French herringbone. These and special designs can be made in any wood or combination of woods either domestic or foreign to correspond to the form or nature of the interior decoration employed.

Special Information

Cuts in color showing an exact reproduction of the finished floor, drawings or special designs, and other information will be furnished on request. As members of the Maple Flooring Manufacturers Association, we are in a position to supply any data, or to lay any of the floors in colors featured by that organization. Full particulars of the methods of construction, material required and space needed in the construction of squash courts will also be furnished on request.



Special design floor. Points of compass shown by counter sunk Copper letters—Woods used are Rosewood, Walnut, Teakwood, Holly and Mahogany



For further details and literature, write to:

INDIANA FLOORING COMPANY

234 Rider Ave.
NEW YORK CITY

Oak Flooring Bureau

1289 BUILDERS' BUILDING, CHICAGO



The Charm of Oak Floors

There is nothing more attractive in a home than a carefully laid and properly finished floor of Oak. The lustrous finish reflects the forms of furniture, and serves as a decorative background for rugs and hangings. Oak is the floor without a peer, the floor that needs no apology, but is universally accepted as the highest possible type of flooring.

Oak Flooring has many outstanding advantages, not the least of which is the fact that the cost of Oak Flooring is within the reach of everyone who wants a floor of permanence, a floor of lasting beauty and distinction. Oak floors do not deteriorate with age,

but become more mellow and beautiful as years go by. The natural grain and figure in oak is distinctive,

and cannot be successfully imitated.

Either in natural warm tones, or in modern color finishes, oak flooring harmonizes perfectly with the scheme of room decoration desired.

Durability

Oak Flooring once laid solves the floor problem forever. An Oak floor will out-

last the house itself and remain always the beautiful foundation of the room, its beauty lasting through the years to become a treasured heirloom from generation to generation.

Flooring strips are made to fit accurately, with tongue and groove manufactured according to standard measurements, making a tight continuous floor of unbroken surface. Strips are end-matched providing additional firmness in the floor.

Cleanliness

Oak floors are clean and sanitary and require very little effort to keep them in that condition—just a little freshening up at frequent intervals. There are no crevices to accumulate dirt or dust.

Economy

The first cost of an oak floor is practically the last. By selecting different grades for bedrooms and hallways than for principal rooms, the cost may be kept down to a very reasonable figure. With a little thought, combinations can be worked out that will keep the total flooring cost within a set limit of expenditure and avoid the substitution of flooring that lacks the beauty, durability and other advantages of oak flooring. The lower grades of oak flooring, so called, are just as durable as the higher grades.

For Remodeling Jobs

Lay Oak flooring over old worn ordinary floors. No woodwork need be torn up; the old floor becomes a useful sub-floor. The cost for each room will be considerably less than that of many articles of furniture, and the result will be a permanent beautiful floor that will never need replacement.



Adding a Room

Turn the attic into a clean, attractive place for children to play, where they can romp to their heart's content, by laying Oak flooring over the rough boards.

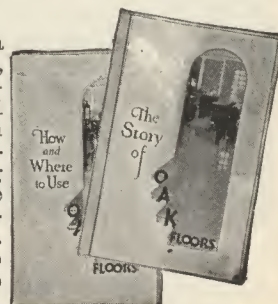
Increased Value

An Oak floored home is always worth more whether for rental or sale, as oak flooring is recognized as a standard appointment in a modern home.

Write for Free Literature

"The Story of Oak Floors" is a 24-page book, illustrated in color, suggesting the proper use of different grades and finishes, and containing practical information invaluable to builders and their customers. Other literature, covering all technical matters is available for your files; also selling literature for you to mail to prospects.

Put your flooring problems up to our experts. We will gladly help you without obligation.



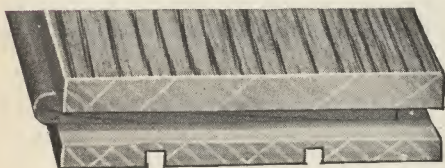
Sizes of Oak Flooring—Actual Size



1 1/2" x 2 1/4" Face



3/4" x 2" Face



1/2" x 2" Face



5/8" x 2" Face-Square-Edge



For further details and literature, write to:

OAK FLOORING BUREAU, 1289 Builders' Building, CHICAGO

BRUCE OAK FLOORING

Manufactured by
E. L. BRUCE CO.

Executive Offices, Memphis, Tenn.

Mills: Memphis and Nashville, Tenn.; Little Rock, Prescott, Ark.; Cairo, Ill.; Bruce, Miss.; and Oak Grove, La.

BruCELLized Oak Flooring. As a result of a marvelous chemical process (BruCELLizing), developed in the Bruce laboratories, which stabilizes the wood, shrinking or swelling is prevented. A BruCELLized oak floor will remain permanently firm and level. It is easier and faster to lay and nail, scrape and sand, and requires less finishing material. Because of chemical changes in the cells of the wood, Bru-CELL-ized flooring is a better insulator to heat, cold and sound. It is moisture proof and insect proof.

Bruce Oak Flooring may be obtained either BruCELLized or untreated.

Standard Grades and Sizes—Grades and specifications of the Oak Flooring Mfr's. Ass'n. are strictly adhered to. Flooring is packed in bundles, bound by wires, labeled, and marked for grade. Every strip is branded "BRUCE."

Remodeling— $\frac{3}{4}$ " Bruce Oak Flooring will modernize an old home; lay it over the old, ordinary floor, which becomes a serviceable subfloor. No woodwork need be disturbed, except the quarter-round at the baseboard.



BruCELLized oak floor planks. BruCELLizing solves the plank floor problem. No longer do wide boards need to be laminated or veneered to keep them from shrinking or swelling—a costly process that has made plank floors too expensive for average homes. Nor are extra precautions needed in laying. BruCELL-ized planks are blind-nailed

like strip flooring, and need no screws, plugs, or butterfly keys to hold them in place. If the antique effect of plugs or keys is desired, they may, of course, be put in. They match up more easily, because the treating process acts as a lubricant, and split less in nailing.

Solid oak planks, the incomparable floors of Colonial days are now within the reach of every home. Write for "Colonial Distinction in Plank Floors."



FabriCELLized Flooring Blocks— laid in mastic without nails.

For homes—Bruce FabriCELLized blocks are the newest idea in distinctive flooring. Each square is manufactured in a complete unit, three or more oak strips, splined together. Ready to lay in mastic, (Barrett XC) over subfloors of wood or cement, without nails. As a result, FabriCELLized blocks are laid even faster than strip flooring, and in less than one-third the time required to lay the same pattern in individual pieces.



FabriCELLized blocks in mastic will remain permanently firm and level, because each square is BruCELLized.

In no way can more be offered for less money. Here is a beautiful design floor at a cost very little higher than



This label appears on all bundles of Bruce oak flooring. Sold nationally through retail lumber dealers everywhere.

ordinary strip flooring. It will not squeak, or show cracks. It is sound-deadening. Easier to lay, scrape, and sand, and takes a superior finish. Insect proof; moisture proof.

May be obtained in blocks of three or more strips, three sizes, in all grades, and may be laid in a variety of patterns; regular square, diagonal square, or half-center square. Wing blocks for borders are furnished when laid diagonally.

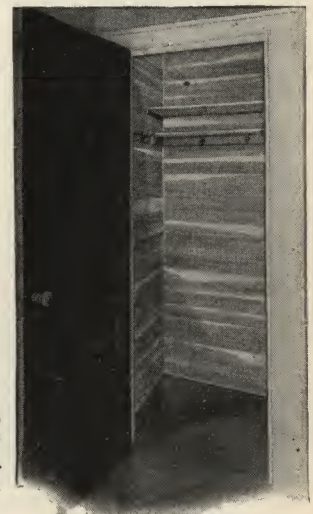
For big construction—Now being laid extensively in hotels, clubs, apartments, public buildings, offices, churches, as well as residences. FabriCELLized blocks save the material and labor cost of screeds, floor fasteners, cinder fill, and sub-floor. Also save at least $2\frac{1}{2}$ " in height per story, with resultant economy in structural cost. This combined saving often exceeds the entire cost of the block floor.

"Ceda'line"—to Keep Moths

A w a y. May readily be installed in closets of old or new homes. Makes a handsome compartment, with or without cedar shelving, and is a practical moth-deterrent lining. Made from aromatic Tennessee red cedar. A "Ceda'lined" closet allows ready accessibility to every garment, and affords convenient and space saving, all-year round fur and woolen storage. Strips are side and end matched, making a tight dust proof fit. The pleasing fragrance of cedar wood appeals to women. Send for sample, and literature.



6 $\frac{3}{4}$ ", 9" or 11 $\frac{1}{4}$ " Squares, in all grades



Nailed to studding in new homes, and right over the plaster in old closets.



Registered U. S. Patent Office

Literature

Booklets: obtainable by individual request (1) "Colonial Distinction in Plank Oak Floors" (2) a booklet on FabriCELLized oak blocks; (3) Extra copies of monthly magazine—"Bruce Every Month"; (4) "Just inside your Threshold."

Leaflets: (5) "It's Our Treat" listing advantage of BruCELLizing; (6) "Now Design Oak Floors at New Low Cost"—(FabriCELLized blocks); (7) "Colonial Distinction in Plank Oak Floors"; (9) Guarantee on the BruCELLizing Process; (8) Postcard in colors—"Moth Insurance for Good Clothes—"("Ceda'line").



"Just Inside Your Threshold"

WE WILL IMPRINT LEAFLETS FOR DEALER DISTRIBUTION ON REQUEST

Other Bruce Products—Oak, gum, beech, and Arkansas short-leaf pine, mouldings, finish, and boards; beech, maple and gum flooring; Southern hardwoods, air or kiln dried.



For further details and literature, write to:

E. L. BRUCE CO., Memphis, Tenn.

Largest Makers of Oak Flooring in the World.

CROMAR Factory Finished OAK FLOORING

Now in its Ninth Year of Manufacture

Patented and Manufactured only by **The CROMAR COMPANY** Williamsport, Pennsylvania

Product

Cromar, an oak flooring milled from even-textured, Appalachian white oak, completely scraped, sanded, filled, varnished and waxed at the Cromar Plant, by patented machines.

Saves Time and Labor

Because Cromar is completely finished at the factory, like furniture, all there is left to do is to nail it down. This results in great saving of time and labor, and enables the contractor and builder to handle the floor-laying job himself instead of sub-letting it. He can therefore bid lower, make a quicker sale or rental with quicker money return, and still give the home-owner the best oak flooring he can buy, and at no more than the price of a good carpet.

Laid and Used the Same Day

Cromar is also ideally suited for re-laying jobs. Because of the speed with which Cromar can be laid right over the floors of an old home, contractors can handle a greater number of jobs with the same number of men. Such inside contracts turn a dull winter into a profitable one. And home-owners naturally appreciate the fact that two carpenters can lay Cromar at the rate of a room a day—eliminating all the dreaded confusion and dirt of a week or two, involved in the use of unfinished flooring.

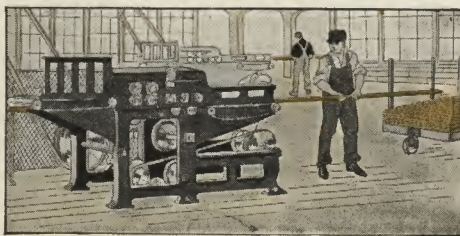
Finished at the Factory by Patented Machines

Finishing Cromar completely at the factory (before shipping instead of after laying) means cutting the usual 7 operations down to only 1 operation:—

The Old Way

- 1—Nailing
- 2—Scraping
- 3—Sanding
- 4—Filling
- 5—First Coat
- 6—Fine Sanding
- 7—Finishing Coat

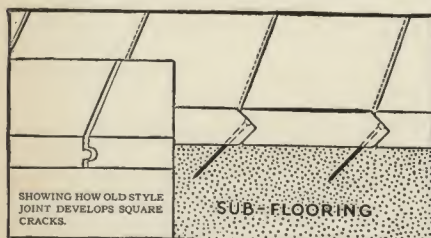
The Cromer Way—Nailing Only



All other operations are done by patented machines at the Cromar Plant

The Cleanable Groove Appeals to the Experienced Housekeeper

The shallow, rounded groove which is formed when two Cromar strips are fitted together is so important a feature that it has been specially patented. It eliminates a fault very common to ordinary hardwood floors. Shrinkage of the boards or settling of the house opens up square cracks between the strips. Square cracks pack with dirt, making unsightly dark streaks that cannot be removed. Not so with Cromar. There is the neatly rounded groove, only 1/40 of an inch deep, from which the dust is easily brushed with a cloth or dry mop. The contractor will find this sanitary feature, this convenience in cleaning, one of the strongest reasons why Cromar appeals to those who have used it in their homes.



There is no surer way of building business than through the good will of satisfied customers.



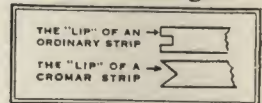
TRADE MARK

Cromar Machines Produce More Beautiful Lustre

Machine finishing produces a more uniformly lustrous surface which is comparable only to that of fine furniture. There are no scraper marks or uneven brush strokes on a Cromar Floor. Machines work more evenly than the best skilled hand.

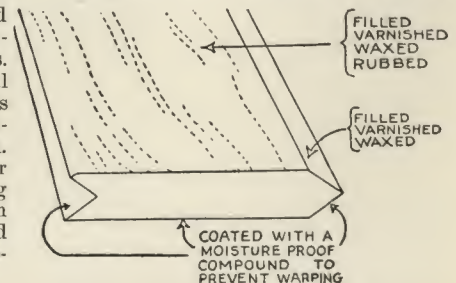
"Lip" on Groove Side of Cromar Strip Remains Unweakened Even at Time of Refinishing

Cromar is made 3/8" thick only. The usual objections to thin flooring are entirely overcome in Cromar by the different shape of the Cromar "lip" on the groove side. The ordinary "lip" is weakened and often broken during installation by the necessary scraping and sanding of unfinished flooring. Of course, there is no scraping or sanding to be done with Cromar. But even at the time of refinishing, the different shape of the Cromar "lip" permits cutting down without weakening. And Cromar's superior finish makes early refinishing unnecessary.



Back and Edges are Also Protected Against Moisture

Often the most perfectly seasoned flooring will warp or shrink because the under-side of ordinary flooring has no protection from moisture. Cromar is the only flooring we know of that is treated on all surfaces. In addition to all of its other patented advantages, Cromar receives a supplementary treatment with a moisture-resisting compound that completely covers back and edges. Cromar is thus protected from dampness coming up from below, so common on ground floors and throughout new buildings. Cromar floors will give the contractor's customers continuous satisfaction. There is no surer way of building business than through the good will of satisfied customers.



Colors

Cromar is furnished in either light or dark finish. See illustration and description on the opposite page.

Distribution

Cromar is sold through Retail Lumber Dealers. Write for free sample, full details, and the names of Cromar Dealers nearest to you who will show sample floors and quote prices.

Cromer Will Stand the Hardest Wear

Cromar's matchless finish is *hard*! No handwork can duplicate the power of patented machines as they apply filler, varnish and wax at the Cromar Plant. Not only is every pore of the wood filled, but the filler is driven deep into the oak. Thus the oil from the varnish is not absorbed. The varnish retains its elasticity and does not flake or scratch white. This is one of the ways in which Cromar saves a contractor much trouble from causes beyond his control. Let your customers make the famous Cromar Hammer Test—you can dent the wood, of course, but you cannot flake off the varnish.



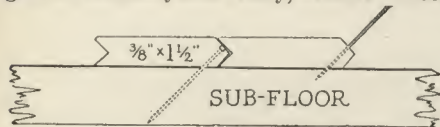
For further details and literature, write to:

The CROMAR COMPANY, Williamsport, Pa.

Improved V-Joint Type of Tongue and Groove Is Quicker and Cheaper to Lay

The laying of Cromar Flooring is one of the simplest and easiest jobs in the construction of a building. It is no more difficult when re-laying in an old house. Each Cromar strip is perfect. The improved V-joint type of Cromar tongue and groove fits closely and evenly, without "blocking." Each nail hole is punched.

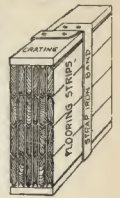
The flat, beveled edge of the tongue permits quick, accurate nailing without any necessity whatever of "setting" the heads. Specially trained, highly paid floor-layers are not needed.



Perfectly Packed;

Protected Against Damage and Soiling

The strips are packed face to face, 18 or 24 pieces to a bundle. Bundles are clamped in a press, edges protected with crating, and bound with strap iron to prevent rubbing. Fastened so tightly together, it is impossible for strips to work loose. Thus they are made light-proof, dirt- and dust-proof. Each bundle is stenciled with grade and quantity, so the material can be stored, without uncrating, until ready for use. Loss from broken tongues and grooves, split ends and damaged faces is completely eliminated.



Cromar Is Available in Two Beautiful Finishes

Light finished Cromar shows the lustrous, brilliant color which has been identified with the finest hardwood flooring for so many, many years. Lately, however, there has sprung up a demand for a Dark finished flooring. To meet this demand, Cromar Weathered Oak Flooring was developed.

Its beauty is more restrained, and its more neutral tone harmonizes well with any decorative scheme. For these reasons, Weathered Oak Cromar appeals to the artistic sense of many home-owners, and is often preferred by architects and interior decorators. The finish of Weathered Oak Cromar consists of a deeply penetrating stain and two coats of a very hard-drying wax. This waxed finish is more easily kept up than a varnish or shellac finish, since worn spots can be quickly renewed by simply rubbing a little wax on the surface.

Both finishes are beautiful, and the choice remains one of personal preference.



Light Finished Cromar
(Standard Finish)



Dark Finished Cromar
(Weathered Oak Finish)

Letters Expressing Satisfaction with the Beauty and Wear of Cromar

—and the ease and speed with which Cromar is laid—received from Contractors, Architects, Dealers and Home-Owners—are kept on file for reference by anyone interested. Here are a few merely to indicate the general tone of this gratifying correspondence from every section of the country:—

"We are very enthusiastic about your product and we think it will take the place of all other hardwood floors, at least in this vicinity. We have at present orders for houses being built for better than 10,000 feet of Cromar."

EDWARDS CONSTRUCTION CO., Edwardsville, Ill.

"About a year ago I installed your finished hardwood flooring in one room of my house to ascertain whether it would be suitable over an old floor in rather poor condition. This floor has proven so satisfactory that I have ordered enough from my lumber dealer to complete the remaining rooms. Kindly send me a can each of Cromar Liquid Cleaner and Cromar Body Wax."

W. L. DURAND, New York, N. Y.

"It is little more than a year since I laid the first Cromar floor in St. Petersburg. Today it is being specified for the finest new homes, not to speak of occupied dwellings. For example, the last lot I used went into a new residence costing \$80,000."

CHAS. M. KNAPP, St. Petersburg, Fla.

"We had some of your Cromar Factory Finished Oak Flooring installed in our home. Permit me to compliment you on your splendid product. I have naturally been interested in the enduring beauty of the finish; but aside from this, I feel that the original economy which is effected by the use of your flooring—not to speak of its staying qualities and the ease of cleaning—should make Cromar the standard of quality for all home owners."

R. W. LINDSAY, General Sales Manager,

PRATT & LAMBERT, INC., Buffalo, N. Y.

"We believe you will be interested in learning of our entire satisfaction with the several Cromar Floors laid in The Breakers. Cromar floors are beautiful—durable—easily laid—and of utmost importance in the seashore—withstand the moisture."

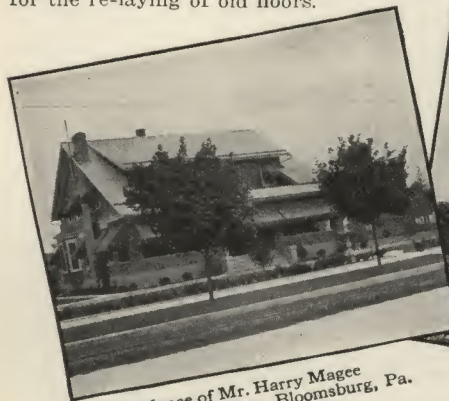
"We are well pleased with the service Cromar floors have given, and are giving The Breakers."

JULIAN A. HILLMAN, Vice-President,

THE BREAKERS, Atlantic City, N. J.

These Photographs Show Buildings with Cromar Floors

—and are intended only to picture the fact that Cromar is the ideal hardwood flooring for every type of building. Cromar is beautiful enough for the most pretentious residence yet economical enough for the most modest. And it is the only logical oak flooring for the re-laying of old floors.



Residence of Mr. Harry Magee
Carpet Manufacturer, Bloomsburg, Pa.



Morgan Hall
Auburn Theological Seminary



Gary Trust and Savings Bank
Gary, Ind.



For further details and
literature, write to:

The CROMAR COMPANY, Williamsport, Pa.

RITTER APPALACHIAN OAK FLOORING

Manufactured by

W. M. RITTER LUMBER COMPANY

America's Largest Producer of Appalachian Hardwood Lumber
General Offices: 115 E. Rich Street, Columbus, Ohio

RITTER Appalachian Oak Flooring is used in the better types of residences and public buildings. It lends distinction to any room because of the beauty of its grain and texture. The outstanding advantages are:

Finer Quality

Its quality is seen at a glance. The uniformity of color in oak depends upon the number of species of oak involved. The fewer the species, the finer the coloring effect. RITTER Appalachian White Oak is produced from only two species, while RITTER Appalachian Red Oak is confined to three.

All RITTER Appalachian Oak Flooring is made from Oak grown in the Appalachian Mountains under ideal conditions of climate, soil and drainage. These conditions produce a fine grain, even texture and uniform color. Because of these qualities, the workmen are enabled to lay and scrape it with ease and economy in such a way as to give, when finished, a smooth uniform appearance, free of irregularities and pleasing to the eye.

Greater Beauty

RITTER Appalachian Oak Flooring, embodying all the qualities desired in Oak Flooring, gives charm and elegance to the home. Many architects and builders have discovered that the effects desired in treatment, finish and resultant beauty in final appearance, can be more successfully obtained by using



Reasons for the Greater Beauty of Ritter Flooring

Floor beauty is largely a matter of timber growth. Granted that the flooring is well manufactured, properly handled, and well laid, the charm of the completed floor goes back to the forests in which the timber originates.

How appropriate the timber is depends principally on where it was grown. Oak grown in low, swampy areas, although suitable for many purposes, is usually of coarse, flashy grain and uneven texture, due to fast growth and the resultant wide growth rings. Such oak is not adapted to the production of flooring of the same character of beauty as highland oak of fine, subdued grain and uniform texture.

Highland oak, particularly that from the Appalachian Region, on the other hand, possesses fine grain, close, even texture and more uniform color—qualities so essential to the truly beautiful floor. These characteristics are due to slow growth in the elevated and well drained areas of the Appalachian mountains, where there is an abundance of oxygen and nitrogen, where the tree roots are well aerated, all resulting in the comparatively thin cell wall found in oak of desirable texture.

RITTER Appalachian Oak than in any other way. RITTER Appalachian Oak Flooring is not only made from the finest of timber, properly seasoned and manufactured, but in addition it is stored in warm rooms from the time it is manufactured until it is shipped to its final destination, thus assuring to its users the maximum of satisfaction.

Economy

The slight additional initial cost of RITTER Appalachian Oak is far more than made up through the economy in laying, scraping and finishing, in the greater satisfaction to the home-owner in the finished floor and in the increased re-sale value of the home in which RITTER Appalachian Oak is used.

For Every Requirement

RITTER Oak Flooring can be laid in any one of three patterns: strip, block or herringbone, according to individual taste. These patterns are made in the standard grades and sizes. The block and herringbone patterns can be had only in $\frac{1}{2}$ " thickness, but the strip pattern is manufactured in both $\frac{3}{8}$ " and $\frac{1}{2}$ " thickness. No matter what the requirement, there is a grade of RITTER Flooring to care for it. Each possesses the same fundamental qualities that have made "Ritter Brand" the acknowledged superior in the oak flooring field.

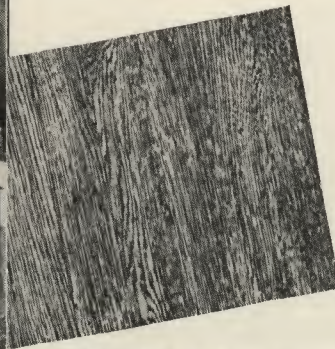
Remember

In the standard rules for grading Oak Flooring consideration is given to such imperfections as knots, worm holes, sap, splits and similar defects, but no consideration is given to grain, texture or color; therefore, to be assured of beautiful Oak floors, it is necessary, in addition to specifying the grade desired, to specify also that the flooring ordered must be manufactured from Appalachian Oak. The easiest and surest way of securing a satisfactorily finished floor is to insist on RITTER Appalachian Oak Flooring.

In order to enable the purchaser to know he is getting RITTER flooring, every piece is branded on the back: "W. M. Ritter Lbr. Co."



Ritter Appalachian Oak Flooring in the home of Mr. Frank B. Putt, Rydal, Pa. Architect, Carl Ziegler, Philadelphia.



The panel of flooring above illustrates the grain and uniform texture of Ritter Oak Flooring.



For further details and literature, write to:

W. M. RITTER LUMBER COMPANY

115 E. Rich St.
Columbus, Ohio

Brown's SUPERCEDAR Closet Lining

Manufactured by
GEORGE C. BROWN & CO.
Memphis, Tenn.

Largest Manufacturers of Tennessee Aromatic Red Cedar in the World

Supercedar is the trade marked name of the closet lining made by George C. Brown & Co., Memphis, Tenn., world's largest producer of aromatic red cedar. It is a superior product, 90 per cent red heart, fully air-cured, and rigidly inspected during manufacture. It is tongue-and-grooved, end matched, and sealed immediately in double face fibre board cartons against deterioration or damage in shipping.

Cost: Supercedar, with its superiorities and many advantages, costs no more than ordinary cedar closet lining.

Lumber Dealer and builders' supply houses in nearly every community in the United States have Supercedar in stock or can get it quickly from warehouse stocks located in various sections of the country.

The Aroma of Supercedar, so pleasant to humans, is deadly to moths. A closet properly lined with Supercedar and having a well fitting door will suffocate the moth or its larvae. The aroma comes from the oil in the wood, but the oil is only found in the red heart wood, that is the reason why Brown's Supercedar is more desirable than ordinary cedar...it is 90 per cent red heart. Tennessee Aromatic Red Cedar trees, logs or lumber contain much sap, or what is known as white wood. This white wood has no value as a moth deterrent. It contains no oil and gives off no aroma.

In New Homes closets are first plastered or lined with wallboard. Lining may be nailed direct to studding in closet wall, ceiling and inside of door providing closet is first lined with heavy building paper and all openings below floor or above ceiling of room are closed. Use $\frac{3}{8}$ " Supercedar Flooring. Do not varnish or paint Supercedar. The end joints need not come over the studding because end matching insures tight joints. Use of Supercedar Quarter Round insures tight corners and a finished appearance.

Remodeling Work: Homes and apartments without moth proof closets can be modernized quickly, easily and cheaply with Supercedar. Simply apply Supercedar over the plaster walls and ceiling. Line the door also. There being a good, solid floor, the $\frac{3}{8}$ -inch Supercedar Closet Lining can be laid as a new floor. The cost will be reasonable.

..... Houses and
apartments with
Supercedar
closets have
greater appeal
to both
buyer and
renter.

None
genuine
without
this trade
mark on
each package



Maximum Protection: Bear in mind that the aroma of Supercedar stifles the moth. For that reason the closet door should be weatherstripped unless it is an extra snug-fitting door. The inside of the door should be lined with Supercedar Closet Lining and floor covered with $\frac{3}{8}$ " Supercedar Flooring. The lining in its natural state is effective; if varnished or painted it cannot give off the aroma. Clothing and other articles should be aired and cleaned before storing. All members of the family should be warned to keep closet door closed.

This Package reduces the final cost of Brown's Supercedar Closet Lining by protecting contents against loss or damage in shipping or while in dealer's warehouse.

Brown's
Supercedar
Closet Lining
Is $\frac{3}{8}$ " Thick

Packages sealed at George C. Brown & Company's mills contain following quantities:
Package of $1\frac{1}{2}$ " face, 64 ft.;
2" face, 60 ft., $2\frac{1}{2}$ " face, 48 ft.;
 $3\frac{1}{4}$ " face, 64 ft. Sizes and contents plainly marked on each carton. Registered trademark "SUPERCEDAR" and Brown's guarantee will also be found on each package of the genuine.

How to Estimate Quantity Required for Any Job: Supercedar is measured same as Oak flooring. To arrive at the required amount, add to the square feet of surface to be covered the following percentages: If $1\frac{1}{2}$ " face, add $33\frac{1}{3}\%$; if 2" face, add 25%; if $2\frac{1}{2}$ " face, add 20%; if $3\frac{1}{4}$ " face, add 23%.

Build This Supercedar Storage Closet in Attic:

In many thousands of homes, in addition to cedar lined bed-room closets, you will find a storage closet in the attic. It is very desirable because of its convenience. Winter clothing, furs and blankets are kept in the locked storage closet in summer and summer things there in winter. This system relieves the bed-room closets, besides providing additional protection against moths.

We have prepared blue print and specifications for two different sizes of storage closets to be built in the attic: $4 \times 4 \times 7$ and $3\frac{1}{2} \times 6 \times 8$, indicating proper door placement and shelving at both ends. The outside may be covered with wallboard or lath and plaster. Prints and specifications gladly sent on request, free.

This Guarantee on Package: "Brown's SUPERCEDAR Closet Lining is manufactured exclusively from Juniper Virginiana, the aromatic Red Cedar of the Southern States, famous for its pleasing, fragrant aroma and used more than fifty years in the

making of Moth-Proof Cedar Chests.

"Beginning with the selected Juniper tree, chosen by the special favor of nature to contain the wonderful Oil-of-Cedarwood (making it impervious to decay) the process of manufacture of Brown's SUPERCEDAR Closet Lining makes certain that all the aroma so deadly to moths is retained in the finished product and will so remain permanently."

For further details and literature, write to:

GEORGE C. BROWN & CO., Memphis, Tenn.

Andersen Standard White Pine Window Frames

Manufactured by

ANDERSEN LUMBER COMPANY

Bayport, Minnesota

Products

ANDERSEN FRAMES — Standard White Pine Frames for double hung and casement windows, outside doors, and cellar sash.

Weatherproof and Watertight

Andersen Frames insure home comfort because they are weatherproof and watertight. They last a lifetime and prevent wind, dust, or water leakage. Exclusive features (several of them patented) guarantee window frame satisfaction to contractors and home owners.

Andersen Frames are the product of twenty years specialized experience. Approximately 7,000,000 Andersen Frames are now in use.

Economy of Andersen Frames

Though superior in many ways to ordinary frames, Andersen Frames cost the home owner no more. Standardized, quantity production makes it possible to effect many savings in manufacture and this saving is reflected in the price.

Utility

Andersen Frames can be used in every type of architecture. Variations in the stock frame are easily made to meet every architectural requirement. This means economy for contractor and home owner.

There is a frame for every wall construction—frame, stucco, brick veneer or masonry.

Standard variations possible are: $\frac{7}{8}$ or $1\frac{1}{8}$ inch head and side casings; stucco reveal with wide blind stop; solid or subsill construction; plain or moulded head cap; and various mouldings and staff heads.

Casement window frames are made for both inswinging and outswinging sash.

Door frames to match each window frame design.

Enduring Materials

All Andersen Sills and Casings, the parts most exposed to the weather, are of *Genuine Soft White Pine*. This wood does not warp, swell, shrink or crack. It takes nails and holds paint better than any other wood. It gives long life and permanent accuracy to Andersen Frames.

Pulley stiles which are not exposed to the weather but are subject to frictional wear of sash operation, are made of *Pondosa Pine*, a harder wood fiber.

Door frame sills are available in either *Genuine White Pine* or select *White Oak*.

The finished frame stock is virtually clear and contains no defects marring the durability or appearance.



Noiseless Pulley

A special feature of Andersen Frames for double hung windows is the patented noiseless wear-proof pulley. A laboratory test equal to 100 years sash operation proved this pulley to be absolutely noiseless and wear-proof.

Accurate Construction

Smooth milling and accurate construction is secured by special machines and expert workmen constantly producing the same standard article.

As far as practical, all frame parts are assembled at the mill. Pockets are cut, broken out and refastened with screws; pulleys are screwed in place; parting beads and blind stops are nailed in position.

"A Frame Up in Ten Minutes"

All parts fit exactly. No trimming or refitting is necessary on the job. Each frame is shipped knocked down in two bundles. There are only seven units. No loose or frail parts are packed to become lost or broken. Dealers furnish Andersen Frames either assembled or K.D. in bundles.

It only takes ten minutes for one man to completely erect an Andersen Frame.

Standardized Sizes

Any size head and sill member may be used with any side member. The multitude of sizes thus possible enables the Andersen dealer to give unusually prompt service.

Andersen Frames are made in the following sizes for Western or New York openings. Corresponding Ohio opening sizes are also made. Be sure to check with your local dealer as to the sizes and designs he carries. Local custom often governs the stock handled.

Cellar Frames

Widths: 2'4", 2'5", 2'7", 2'9", 2'10", 3'4".

Heights: Every inch from 1'2" to 2'1", inclusive, and in addition 2'5".

Double Hung Window Frames

Widths: Every two inches from 1'4" to 4'0", inclusive, and in addition 2'1", 2'5", 2'7" and 2'9".

Heights: Every four inches from 2'6" to 6'6" inclusive, and in addition 3'0" and 4'0".

Casement and Stationary Sash Frames

Widths: Every two inches from 1'4" to 4'0", inclusive.

Heights: Every two inches from 1'9" to 2'11", inclusive, and every four inches from 3'2" to 5'10", inclusive.

Door Frames

Widths: Every two inches from 2'6" to 3'0", inclusive.

Heights: Every two inches from 6'6" to 7'0", inclusive.

Available at Lumber Dealers

Andersen Frames are available at lumber and millwork dealers. Write for the name of your nearest Andersen dealer.

Catalog

Our complete catalog with architectural and construction details will be sent to contractors and architects upon request.

Send For Your Copy of Illustrated Booklet "How to Make Your New Home More Comfortable."



For further details and literature, write to:

ANDERSEN LUMBER CO., Bayport, Minn.

FIVE POINTS OF SUPERIORITY

1—Permanence

Genuine, Soft, White Pine is used for the exposed parts of every Andersen Frame. This wonderful wood does not check or rot and will last a lifetime. No replacements are necessary. A reasonable first cost includes up-keep and insures *Permanence*.

2—Home Comfort

Absolutely accurate construction; patented features to allow easy and economical use of wide blind stops; patented noiseless, easy running pulleys all help to make Andersen Frames insure *Home Comfort*.

3—Beauty

Carefully proportioned, easily adapted to any designer's

Andersen FRAMES

wishes—wide and narrow casings of genuine white pine to take paint smoothly—these qualities of Andersen Frames insure building *Beauty*.

4—Convenience

Andersen Frames, handled nationally by leading jobbers and lumber dealers, are so distributed as to be available to builders everywhere for *Convenience*.

5—Economy

Standardized and specialized manufacture, quantity buying and production make it possible to market Andersen Frames at a reasonable price, and, through them, to insure both contractor and home owner real *Economy*.

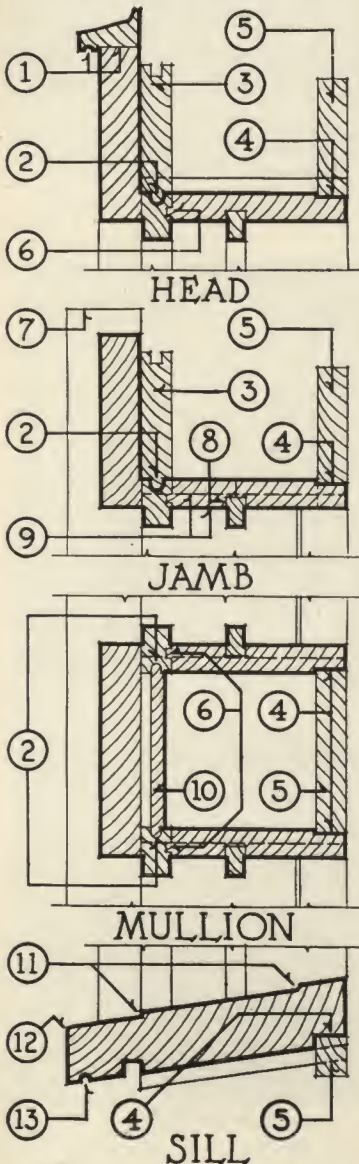
Special Features

Andersen Frames embody many features that builders have requested. In addition to the fine material, excellent milling, accurate construction and the noiseless pulley, they have many special features. Some are shown below.

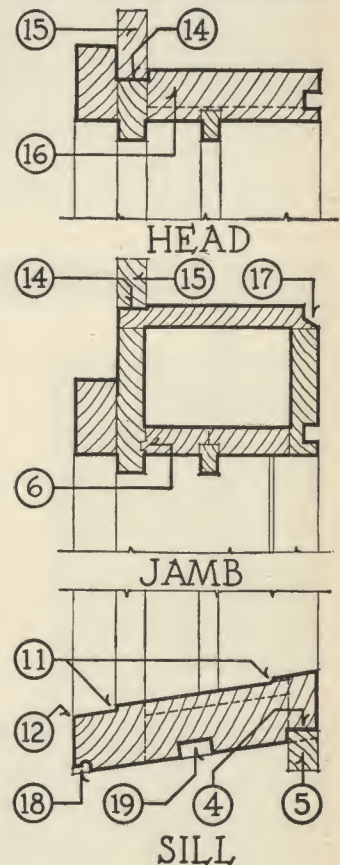
Andersen Casement Frames also have most of these features. Andersen Frames do not become sprung under stress. As moisture condenses very little on wood, rust does not appear to stain draperies. And most important, air infiltration is prevented by the weather-tight Andersen Frame.

- (1) Rabbet and water drip in head casing cap prevent water leakage.
- (2) Groove (patented) to receive (3) a piece of stock matched lumber forming a wide blind stop to prevent air leakage.
- (4) Rabbet to receive (5) an inside ground casing to prevent air leakage. Or this rabbet forms a shoulder for lath or wall board.
- (6) Jamb is tongued into blind stop to prevent air and water leakage.
- (7) Sill ends are trimmed and smooth cut.
- (8) Groove for parting stop is shallower than dado for sill (9) to prevent water leakage.
- (10) Double tongued filler piece is furnished to make continuous blind stop. Mullion jambs are dadoed into full length sill and head jamb.
- (11) Shoulders on sill prevent air and water leakage under lower sash and storm sash.
- (12) Front edge of sill is rounded to prevent slivering and denting.
- (13) Water drip groove under sill.
- (14) Rabbet to receive (15) a wind stop. This is especially desirable when used with steel lintels.
- (16) Extra heavy (1 7/8") head jamb.
- (17) Rabbet for flush plaster in 8" wall construction. Allows use of narrow standard trim.
- (18) Rabbeted water drip groove provides a caulking rabbet for elastic cement if desired.
- (19) Mortar caulking groove assists in preventing air leakage under sill.
- (20) Rabbet for rough flooring.
- (21) Rabbet for finished flooring.

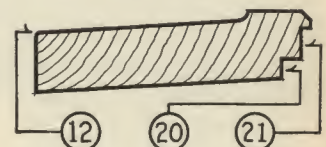
Double Hung
Window Frame
for Frame Construction



Double Hung
Window Frame
for Masonry Construction



Oak Threshold
Door Sill



Andersen Frames Are Sold Through Leading Dealers



For further details and literature, write to:

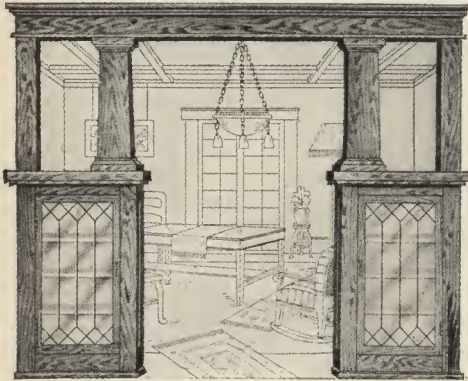
ANDERSEN LUMBER CO., Bayport, Minn.

BILEK BUILT-IN WOODWORK

Manufactured by
STEPHEN BILEK CO.
 2117-2127 S. Troy St., Chicago, Ill.

Bookcase Colonnades

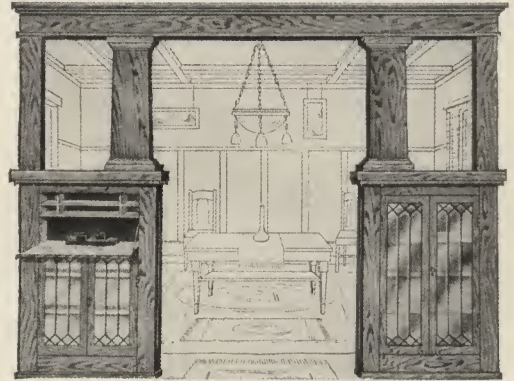
A Bookcase Colonnade adds considerable to the appearance of a home. Their uses are many—can be faced to living room and used for books or can be faced to dining room and will make a very useful china cabinet. All cabinets completely assembled.



Description—Columns are 4 ft. long, 6 in. square, tapering to 5 in. at neck. Pedestals are 4 ft. high, 8 in. deep and 24 in. wide.
No. 644—Yellow Pine\$40.00
No. 645—Pl. Red Oak..... 48.00
No. 647—Birch 48.00

Colonnades consists of two columns and two pedestals just as shown including leaded glazed doors and all necessary hardware — casings and cap trim not included. The back or reverse side of pedestals are neatly panelled.

All Goods Priced
 F. O. B. Chicago

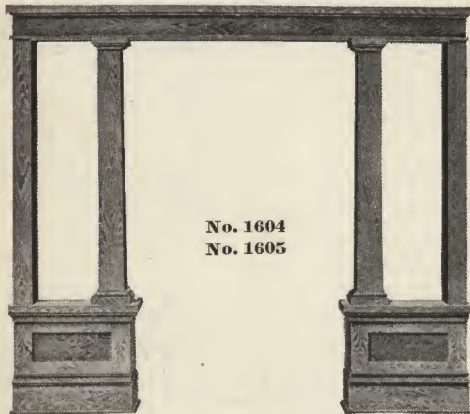


Description—Columns are 4 ft. long, 7 in. square, tapering to 6 in. at neck. Pedestals are 4 ft. high and 10 in. deep and 2 ft. 6 in. wide.
No. 657—Yellow Pine\$52.00
No. 658—Pl. Red Oak..... 60.00
No. 663—Birch 60.00

Colonnades

Colonnade consists of 2 square columns, 6 in. to 5 in. at neck and 6 ft. long; two pedestals 24 in. wide and 24 in. high by 11 in. face. Casings cap trim and room base not included.
No. 1604—Yellow Pine . \$26.00
No. 1605—Pl. Red Oak. 32.00

Colonnade consists of 2 beam brackets, round columns and pedestals, columns 6 in. to receive 5-inch cap. Pedestals 24 in. by 24 in., 11-in. face.
 Priced for openings up to 8 ft. 6 in. high.
No. 1614—Yellow Pine . \$50.00
No. 1615—Pl. Red Oak 60.00



No. 1604
 No. 1605



No. 1614
 No. 1615



Bungalow Buffet

Recess wall opening 5 ft. wide, 5 ft. 4 in. high and 14 in. deep, all trim included.
No. 116—Yellow Pine.....\$70.00
No. 117—Pl. Red Oak..... 80.00
No. 118—Necessary hardware..... 4.50

A Buffet is an indispensable article of furniture which the builder of a home cannot overlook. The Bungalow Buffet is made to set in recess wall opening and the LaSalle is designed to set flat against wall.

Buffets priced complete as shown with mirror and leaded glazed doors with exception of hardware, which is priced separately all cabinets completely assembled.



La Salle Buffet

Buffet is 5 ft. wide, 4 ft. 10 in. high overall and 16 in. deep. Height from floor to counter is 3 ft. 6 in.
No. 144—Yellow Pine\$70.00
No. 145—Pl. Red Oak..... 80.00
No. 146—Necessary hardware 4.50



For further details and
 literature, write to:

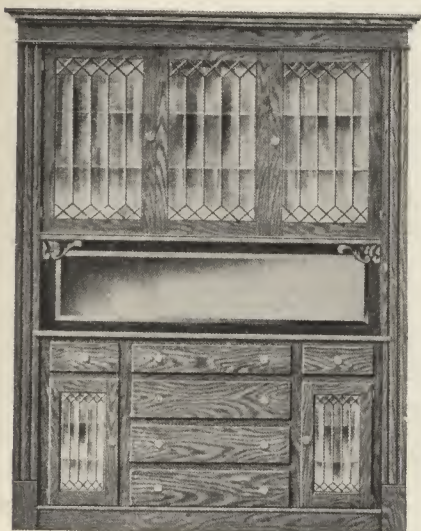
STEPHEN BILEK CO.

2117-2127 So. Troy St.
 CHICAGO

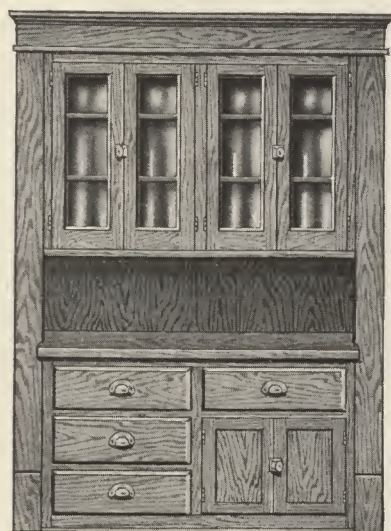
BILEK BUILT-IN WOODWORK-(Cont'd)

DINING ROOM AND KITCHEN CABINETS ALL GOODS PRICED F.O.B. CHICAGO

In our Manchester and Yorktown China Closets we are offering you two extremely attractive cabinets of very good proportions. They are made to set in recess in wall so that the front of the cabinet comes with the face of the wall.



Manchester cabinet, wall opening 5 ft. x 7 ft. x 14 in.
No. 112—Yellow Pine.....\$65.00
No. 113—Pl. Red Oak..... 75.00
No. 116—Necessary hardware.... 4.50



Kenwood Cabinet No. 160. Recess wall opening 4 ft. 6 in. wide by 7 ft. high by 14 in. deep.
No. 160—Yellow Pine.....\$50.00
No. 161—Necessary hardware.. 3.00

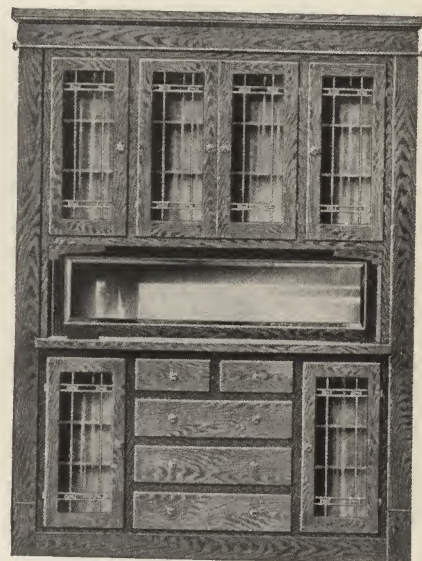
These cabinets come to you completely assembled, as shown, including bevel plate mirror of high quality and doors glazed leaded glass, trim included. Hardware is optional and priced separately.

The wall opening for either cabinet must be 5 ft. wide, 7 ft. 14 in. deep.



Richmond cabinet No. 165, made to set up to wall with finished ends. Cabinet completely assembled. Top section 12 in. deep; lower section 20 in. deep; width 36 in.; height overall, 7 feet.

No. 165—Yel. Pine\$40.00
No. 166—Hardware 1.50

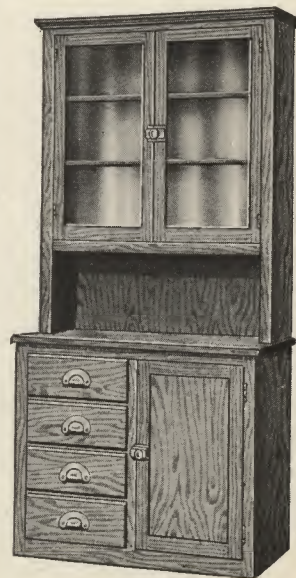


Yorktown Cabinet. Wall opening 5 ft. wide x 7 ft. high x 14 inches deep.
No. 130—Yellow Pine\$70.00
No. 131—Pl. Red Oak..... 80.00
No. 134—Necessary hardware.... 4.50

Oak wood Cabinet No. 170 (and Richmond Cabinet) made with finished ends so they can be placed against wall anywhere. These cabinets come to you completely assembled ready to put in place, except they are shipped in two sections (upper and lower) all sanded ready for finishing, carefully crated.

Top section 12 in. deep, lower section 20 in. deep, width 3 ft. 6 in., and height overall of both sections 7 ft.

No. 170—Yellow Pine \$47.50
No. 171—Hardware \$1.50



No. 20

Medicine cabinets, set in recess wall opening.

No. 20—Yel. Pine. Wall opening 19"x24"x4". Price complete with plate mirror 14"x18" and hardware\$4.50

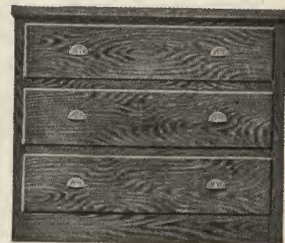
No. 22—Yel. Pine. Wall opening 19"x28"x4". Price complete with plate mirror 14"x18" and hardware..... 5.00



No. 22

Pantry Drawer Case No. 155. Made of Clear Yellow Pine, completely assembled. Height 2 ft. 8 in., width 3 ft., depth 16 in. Back and sides are not sealed.

No. 155—Yel. Pine, including necessary hardware\$8.50



No. 155

For further details and literature, write to:

STEPHEN BILEK CO.

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IDEAL Built-In FURNITURE

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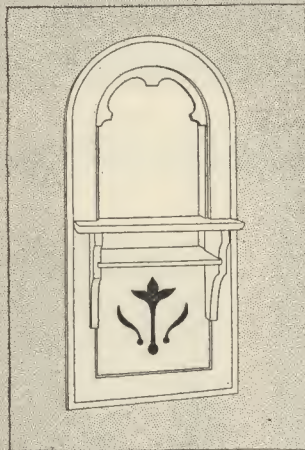
IDEAL BREAKFAST SET W-910.
Simple in treatment yet cozy and comfortable. Price \$21.25.



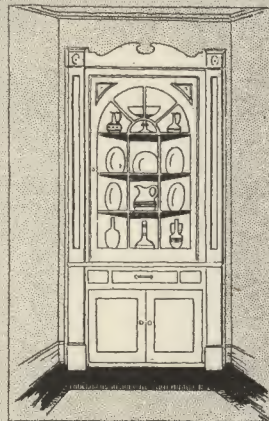
IDEAL KITCHEN COMBINATION. An effective grouping of IDEAL Built-In KITCHEN units, plus an IDEAL drain board. Provides ample cabinet space for requirements of large family. Yields to any decorative treatment. Price from \$66.20 to \$90.85.



IDEAL BREAKFAST SET W-913.
Popular for small homes and apartments. Very charming. Price \$19.50.



IDEAL TELEPHONE CABINET W-943.
A gracefully proportioned unit of the circle head type. Cabinet does not muffle sound of bell. Place for phone, box and book. Price \$9.10.



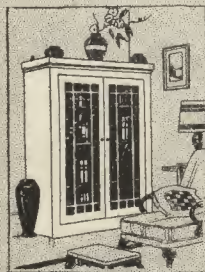
IDEAL COLONIAL CHINA CABINET, W-926. Rich in old colonial treatment. Colonial trim is added to Cabinet W-925 to achieve this effect. Price (plain) W-925—\$49.75, (Colonial) W-926—Price \$61.25.



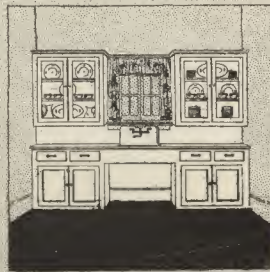
IDEAL LINEN CABINET W-946. Size over all, 3 ft. wide by 8 ft. high. Lends to any decorative treatment. Drawers operate smoothly. Soiled clothes hamper is properly ventilated. Plenty of linen storage. Price \$34.00.



IDEAL MEDICINE CABINET, W-947 and W-949. Built for 4 in. or 6 in. studding. A beautifully proportioned cabinet. Bevel glass mirror. Adjustable cabinet shelves. Price \$7.25 and \$8.50.



IDEAL BOOKCASE, W-935. A most charming home for friendly books. Eleven light glass door design effectively patterned. Fits 3 ft. 6 in. or 4 ft. space. Height 4 ft. 6 in. Price \$22.00.



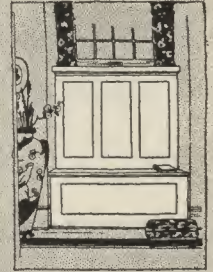
IDEAL KITCHEN COMBINATION. An efficient grouping of two IDEAL Kitchen Dressers W-901, plus IDEAL drain board. Ample cabinet space. Smoothly operating drawers. Price \$54.75 to \$67.10.



IDEAL BUFFET W-912. A most beautiful built-in unit of distinctive custom built appearance. Art glass doors. Roomy linen and silver storage. Price \$55.50.



IDEAL VANITY WARDROBE AND DRESSER W-955. A unique piece of built-in furniture for Milady's boudoir or guest room. Bevel glass, adjustable mirrors, cedar-lined closet, smoothly operating drawers. A Deluxe Unit. Price \$125.00.



IDEAL Built-In SEAT W-937. For hall, living room, den or odd nooks this seat unit is not only pleasing to the eye but unusually comfortable. Yields to any decorative treatment. Price \$13.00.

Custom built appearance—Standardized production price



For further details and literature, write to:

WM. CAMERON & CO., Inc., Manufacturers, Waco, Texas

New charm - convenience and comfort for every room in your home



In IDEAL Built-In FURNITURE three definite requirements of the woman of the home have been given prime consideration. Beauty, Durability and Individuality. Beauty in design, graceful proportions, snowy satin-like finish. Durability in finest selected and tested materials fashioned by skilled artisans. Individuality—thru a wide range of effective and charming combinations permitting her to express her personality in diversified arrangement.

IDEAL is trademarked on each unit. It is a guarantee of quality, material and workmanship. It is known and valued protection.

There is not a single room in the home but that can have new charm, greater convenience, and added comfort thru the use of IDEAL units. All at a price surprisingly low.

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IDEAL Bookcase Unit W-935, cozy distinctive quarters for friendly books. PRICE—\$22.00.

IDEAL Seat Unit W-937, comfort is combined with stately appearance. PRICE—\$13.00.

IDEAL LIVING ROOM Combination A-1 mantel and two flanking seat units. PRICE—\$38.00.

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IDEAL Corner China Cabinet W-925, pleasing and distinctive. PRICE—\$49.75.

IDEAL Colonial China Cabinet W-926, truly colonial in treatment. PRICE—\$61.25.

IDEAL Telephone Cabinet W-944, space for book, phone and box. PRICE—\$7.25.

IDEAL Vanity Wardrobe and Dresser W-955, a masterpiece in built-in furniture for Milady's boudoir. Cedar lined closet, adjustable bevel glass mirrors. PRICE—\$125.00.

IDEAL Linen Cabinet W-945, ample cabinet space, ventilated clothes hamper, smoothly operating drawers. PRICE—\$34.00.

IDEAL Medicine Cabinet W-945—948 Bevel Mirror—No lower shelf, for 4-inch studding. PRICE—\$6.50; for 6-inch, \$7.25.

IDEAL Medicine Cabinet W-947—949 Open Shelf eliminates necessity for protruding shelf. Bevel Mirror. For 4-inch studding, PRICE—\$7.25; for 6-inch, \$8.50.

IDEAL Breakfast Unit W-910, a charming cozy set for breakfast nook. Open end design, seats wide and comfortable. PRICED at only \$21.25.

IDEAL Breakfast Set W-911, designed for the most fastidious. Beautifully proportioned, panel finish. PRICE—\$22.25.

IDEAL Breakfast Set W-913, a cheerful, cozy set for small nooks. PRICE—\$19.50.

IDEAL Buffet W-912, a most distinctive piece of built-in furniture adaptable for use



IDEAL BUILT-IN IRONING BOARD AND CABINET—W-909
(Patented) Price, \$8.50

The outstanding Cabinet Ironing Board on the market. Board requires no braces or under legs, for support, yet will stand weight of several hundred pounds on tip without sag. Board may be easily removed for use anywhere. Lower Cabinet holds iron, cord and stand. Board and sleeve board operates with ease. Will last a lifetime. Cabinet of superior beauty and yields to any decorative treatment. The price—\$8.50.

in breakfast or dining room. Smartly modern in design. PRICE \$55.50.

IDEAL KITCHEN Dresser W-901, a single unit in widths from 2 ft. 6 in. to 4 ft. PRICES range from \$25.15 to \$30.75.

IDEAL Kitchen Combination W-901, two Ideal Kitchen Dressers used in combination with single shelf board. An efficient arrangement. PRICE of the combination in 8 ft. length, \$65.45.

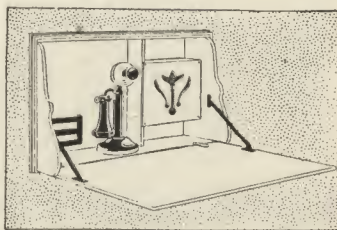
IDEAL Kitchen Combination with Ideal Drain Board. An effective arrangement of two Ideal Kitchen Dressers, W-901 and Drain Board to give complete kitchen efficiency. All the work is confined within reach of your spread arms. Appearance beautiful. Shown in second from left illustration bottom of left page. PRICED from \$54.25 to \$67.10 depending on width.

IDEAL Kitchen Combination containing one Kitchen Dresser W-901, one W-903 plus an IDEAL Drain Board and connecting unit W-902. Shown in top center illustration on left hand page. W-903 contains removable flour bin. Drawer and cabinet space ample for requirements of large family. PRICE depending on width, from \$66.20 to \$90.25.

IDEAL Built-in Furniture arrives on the job carton-packed to avoid blemish or soil. Its surface is as snowy-white and flawless as when it leaves our factory. No hardware is furnished except in the Phone-a-Desk, because it is customary to match hardware on the job with that selected for the household. Any carpenter can install IDEAL units as instruction sheets are shipped with each unit.

Architects on request will be supplied with loose-leaf portfolios, containing detailed drawings and perspectives. Dealers who write our Waco office will be sent catalogs.

Home and Apartment builders are urged to write for our beautifully illustrated booklet, "New Charm for Your Home." It contains many beautiful room settings and is sent FREE.



IDEAL PHONE-A-DESK—W-92

For library, hall or den this beautiful built-in desk and phone cabinet will be most useful and ornamental. The design is such it will fit into any decorative scheme. Hardware of pleasing design and sturdy. Constructed for permanency. A unique feature in built-in furniture. Price, \$12.75.

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Cole's Architectural Woodwork

Made by
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Medicine Cabinet
 No. 10



**Cole's
 Architectural
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 and
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Made from *clear white pine*, glazed with the best quality of glass and the highest grade of putty. All standard sizes plain and check rail windows carried in stock. Odd sizes made up promptly.

Cole Fir Doors
 A complete stock—all standard designs and sizes, ready to ship. Special sizes and designs made to order on short notice.



Design Q

2-Panel Door



Showing Triple Breakfast Nook No. 122
 (Installed on plain wall, ready to use)

Beauty
 Utility
 Economy
 Convenience
 are combined in
 Cole's Built-in Furniture

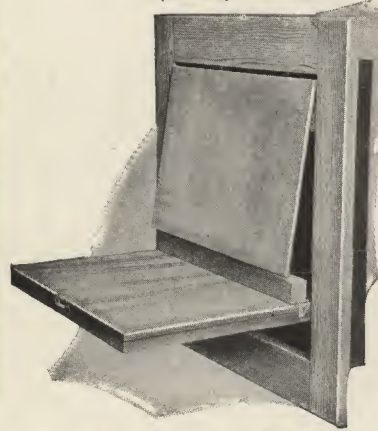
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 Write for
 it today



China Closet No. 27



Wall Seat No. 4
 (Closed)



Wall Seat No. 4 (Open)



Triple Unit No. 122 (Closed)



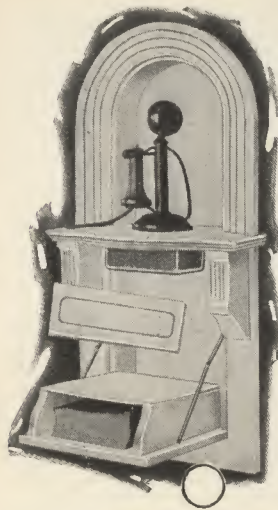
For further details and
 literature, write to:

COLE MANUFACTURING CO.

MEMPHIS
 TENNESSEE

Cole's Built-in Furniture (Cont'd)

Cole Telephone Cabinets



No. 23

No. 23 (Left)

An artistic cabinet. May be used in either standing or sitting position. Place for phone book. Bell box kept out of sight.

Specifications
Made to fit between studding.

Overall Size
1' 5 1/2" wide
3' 2 3/4" high

Rough Opening
1' 2" wide
2' 11" high



No. 25

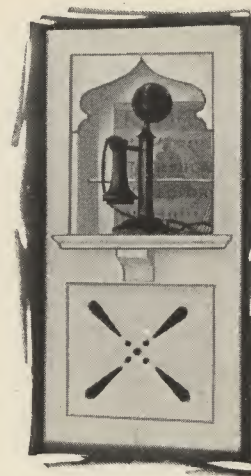
No. 25 (Left)

The automatic sliding doors both open when the door at right is opened. Hinged door has bin for phone book.

Specifications
Made to fit between studding
Installed like a medicine cabinet.

Overall Size
1' 5 1/2" wide
3' 2 3/4" high

Rough Opening
1' 2" wide
2' 11" high



No. 21

No. 21 (Left)

Phone book kept behind rod back of phone. Shipping weight, 18 lbs. Made of white pine with 3-ply fir back.

Specifications
Installed like a medicine cabinet.

Rough Wall Opening
1' 1" wide
2' 7 1/4" high

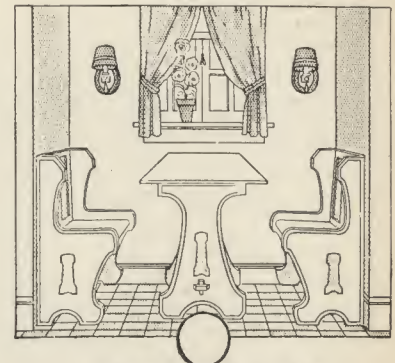
Overall Size
1' 4 1/2" wide
2' 10" high



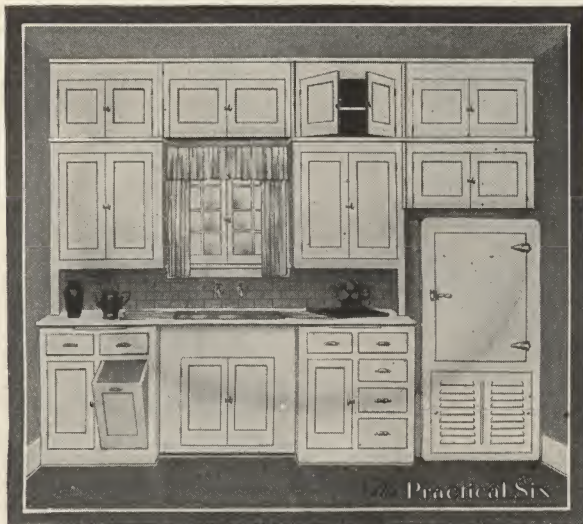
Corner Nook
(Fixtures folded into wall)



Corner Nook
(Extended for use)



Breakfast Nook No. 1-A



Practical Six Combination Kitchen Cabinet
(Will fit in any wall space from 6 ft. to 12 ft. wide)

Strong! Economical!

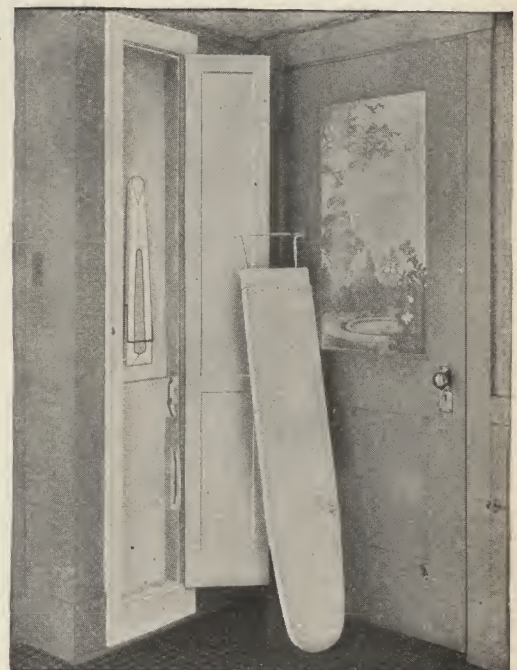
Easy to install
All working parts of metal

Folding seats, tables, ironing boards are fool-proof against collapse

Table and seat tops are ribbon-grained Phillippine mahogany

Moderate Prices

Write for
Built-in
Furniture
Catalog



No. 1-A Ironing Board
(Showing metal working parts)



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CURTIS WOODWORK

THE CURTIS COMPANIES SERVICE BUREAU

872 Curtis Building, Clinton, Iowa

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Curtis-Yale-Holland Co. Minneapolis, Minn.
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Curtis Companies, Incorporated, Clinton, Iowa. Sales Office and Display Rooms, Room 201, 9 East 41st St., New York City
Manufacturers of Trademarked Architectural Interior and Exterior Woodwork, Standardized

Products

Standardized Architectural Woodwork:

Complete Entrances
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Mantels
Panel Work
Dining Alcoves
Stairways
Stair Material
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1866
CURTIS

This trademark appears only on Curtis woodwork. It guarantees the choicest woods, high standards of workmanship and authentic designs.

Built-in Woodwork:
Bookcase Material
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China Closets
Sideboards
Buffets
Kitchen Dressers
Ironing Boards
Dressing Tables and Cases
Medicine Cabinets
Exterior Moldings
Interior Trim

Design

Woodwork has two-fold importance in the home beautiful. It is architecturally and structurally a part of the house itself. At the same time it strikes the keynote of the interior decorative scheme. Beauty in the home must begin with the woodwork.

Realizing this two-fold importance, the makers of Curtis Woodwork have made available to contractors and home builders everywhere east of the Rockies, woodwork designs that conform to the most rigid requirements of the architect and interior decorator. Curtis designs were created especially for the Curtis Companies by Frederick L. Ackerman, of New York City, an architect who has designed some of the most expensive houses in America and has done work that authorities say is "worthy to stand with the best work of all time." The best houses in America and England have served as prototypes for Curtis designs; and the result is woodwork beautiful enough for the mansion but within the buying power of the builder of the modest cottage.

Construction

These authentic designs are produced by Curtis according to very rigid specifications as regards materials, methods and workmanship. It is impossible to describe here all Curtis construction details in full. The examples of the rabbeted check rail used in Curtis double-hung windows; the panel thickness in Curtis softwood doors; and the lock-mitre joint in Curtis cabinetwork, must suffice. Study these carefully, for they are

typical of the through-and-through goodness that only the Curtis trade-mark stands for.

Price

In spite of authentic design and superior materials and construction, Curtis Woodwork costs little or no more than ordinary millwork. When such expense items as cutting and fitting and sanding on the job are taken into account, Curtis Woodwork often costs less. Low cost has been made possible by large scale production and wide distribution.

Deliveries

Curtis Woodwork is instantly available, either from the Curtis Dealer, who usually stocks a large line, or through him from the nearest Curtis plant. There are no chances for delays, mistakes or expense, as with made-to-order millwork. Your house is not held up waiting for the frames, trim, stairwork or cabinetwork, when you use Curtis Woodwork.

Curtis Woodwork is sold everywhere east of the Rockies through lumber dealers who handle the line. The Curtis dealer nearest you will be glad to give you full information about the items he carries in stock and to show you his Curtis Catalog, which offers you a complete selection of Curtis designs, of which those shown here are merely examples.

Or a letter to the Curtis Companies Service Bureau, 872 Curtis Building, Clinton, Iowa, describing your requirements, will bring complete information and recommendations.

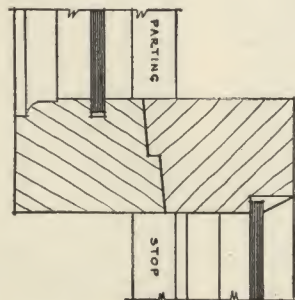


Ovolo Molding



Flush Molding

Curtis Door Moldings—The cross-sections on the left show the two types of moldings—ovolo, used on all Curtis doors, and flush molding, used in certain patterns only, and the construction of solid "raised" panels in softwood doors. In doors 1½-inch thick these panels are 1½-inch thick; in 1¾-inch doors, they are 1½-inch or more thick. Thus they have greater strength and a heavier "raise" that gives the door beauty and interest not found in flatter panels. Note that the ovolo molding is one with the stile or rail, while the flush molding is "applied" to a spline set in a groove in the stile or rail so that as the panel expands and contracts the molding will not pull away from the frame of the door.



Curtis Rabbeted Check-Rail

Curtis Rabbeted Check-Rail
—The drawing at the right shows a section through the check-rails on a Curtis double-hung window. Note the offset or "rabbet" in the beveled joint between these rails. Seven times as much wind pressure is required to get through this kind of a joint as an ordinary beveled check-rail.

Curtis Lock-Mitre Joint and Ordinary Nailed Butt Joint—In Curtis cabinetwork corners are made by the Curtis lock-mitre or tongue-and-groove joint. The pieces are glued, not nailed together. Result: No edge grain wood at the corner to mar the finished surface; no nail head holes; no open cracks and a stronger joint. This same construction is used in making square newels.



Curtis Lock-Mitre Joint



Ordinary Nailed Butt Joint

In Curtis cabinets with drawers, the drawer sides and ends are put together with dove-tailed corners; they cannot pull apart. The drawers are slightly narrower at the back than at the front and they operate on center guides. These details prevent binding and jamming. The drawer bottoms are three-ply boards set in grooves in the sides and ends all around; they cannot come loose and slip out at any point. Face stock in Curtis cabinets is 1½-inch thick; the wood is all carefully matched in both color and grain; and Curtis construction is better than that found in much of the fine furniture on the market.



For further details and literature, write to:

THE CURTIS COMPANIES SERVICE BUREAU

897 Curtis Bldg.
Clinton, Iowa

HOME BUILDERS CATALOG

See Next Page

CURTIS WOODWORK—(Continued)



Curtis Entrance Drake—Door C-1070, frame C-1762. Two distinguishing features of this stately doorway are the Gothic arch and the many small wood panels. This entrance is especially appropriate for the house of Tudor or Spanish type. Door made in sizes 3'0" x 6'8", 3'0" x 7'0", and 3'4" x 6'8". Rough opening varies from 3'3" x 6'10½" to 3'7" x 6'10½". Door furnished in White Pine and Oak, ovolo molded. Frame made of White Pine. Frame for masonry walls has no sill; oak sill furnished for stud walls.

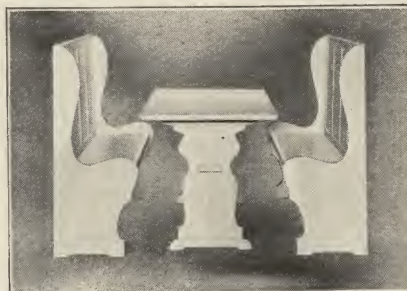
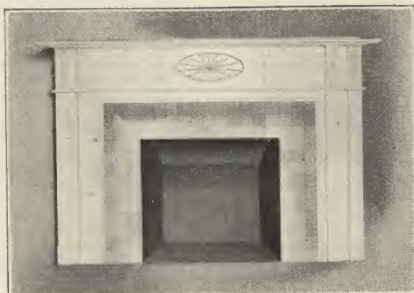


China Closet C-6503—The original of this quaint corner cupboard was found in a home built about 1700, and is now in the American Wing of the Metropolitan Museum of Art, in New York. It is reproduced by Curtis in White Pine, Oak and Birch. Trim is not included; to be trimmed with standard room trim. Overall size including 3¾" trim, 3'5" wide, 7'0¾" high; 1'4" deep. Inside depth 1'2". Height of rough opening required 6'9½" countershelf 2'9¼" high. Three adjustable shelves above and one below.

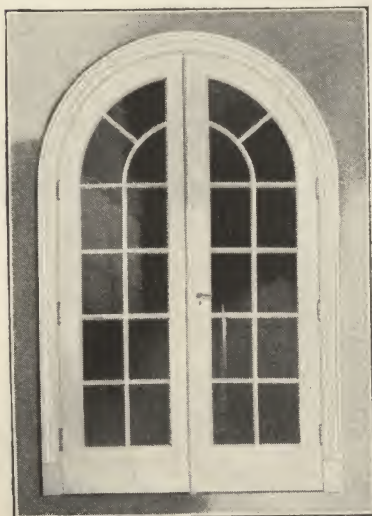


Interior Door C-3051—The panel arrangement in this door is often seen in old Colonial houses. It is also found in houses in the Italian style. Solid raised panels, outlined with Curtis ovolo molding, give the design a richness that is especially desirable in many modern interiors. Where individuality in interior finish is of prime importance, this door is a good choice. Made in White Pine in all necessary sizes, 1¾" and 1½" thickness. Same type door available for round-topped openings.

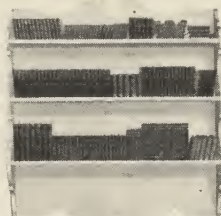
Mantel C-6060—This interesting new mantel of Colonial inspiration has twin pilasters and a composition ornament. It comes in two sizes for fireplaces of different proportions. Furnished in Birch. Height to top of shelf 4'6"; length overall of shelf 6'9" and 7'9"; width of shelf 5½". Height of wood opening 3'3"; width of wood opening 4'3" and 5'3".



Dining Alcove Set C-6600—The beautiful curves of the legs and the high-back seats give this design unusual distinction. Furnished in White Pine. Recommended for a space not less than 5'4" and not more than 6'0" wide. The table top is 2'6" wide, 4'6" long and 2'6" high. Overall dimensions of each seat are 1'6" wide, 4'6" long, and 3'9" high.



French Doors C-3212—An unusual and attractive design of French doors is this in which the pair is arched in a perfect half circle. These harmonize especially well with such types of buildings as the Spanish and Italian where round-topped openings are frequently used. They lend a new and "different" touch that is most effective. Made in White Pine in sizes ranging from 4'0" x 6'8" to 5'0" x 7'0". No hardware included.



Hanging Book Shelves C-6025—Overall dimensions, height 2'9¾", width 2'6", depth 7¼". Furnished with 3-ply ½" panel back. All other parts, ½" material, in Birch, K. D.



Hanging China Case C-6410—Furnished in White Pine to hang in corner. Overall dimensions 2'6¾" wide, 2'11½" high, 1'4½" deep. A d j u s t a b l e shelves.



Window C-2512—The Curtis line includes windows of all types in all necessary sizes. This is a popular Colonial design.



Window C-2714—A new type circle casement window. See Curtis Catalog at dealers for full selection of windows.



Ironing Board C-6770—Furnished complete as illustrated. Case of Yellow Pine. Board of White Pine. Hardware furnished except that required for hanging of door. Rough opening required 1'7¼" wide, 5'2½" high and 4½" deep; when cut 2'4" from finished floor makes height of board at lowest adjustment 2'9". Board has four adjustments up to 3'0". Overall size including trim as illustrated 1'11¼" wide, 5'7" high and 4¾" deep.



For further details and literature, write to:

THE CURTIS COMPANIES SERVICE BUREAU

897 Curtis Bldg.
Clinton, Iowa

DIERKS SUPERIOR SOFT PINE

Manufactured by
DIERKS LUMBER & COAL CO.

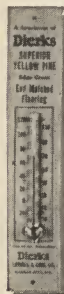
Products

Highest grade interior trim in Pine, Oak and Gum; Pine flooring, end-matched and plain end, Oak flooring and general yard stock.

DIERKS quality lumber products are manufactured from hill grown virgin timber, of which this company owns a vast acreage in the famous Arkansas Soft Pine producing territory and contiguous territory in Oklahoma.

The DIERKS Mills are among the finest and most up-to-date plants in the South. Particular attention is paid to perfection of manufacture. Practically all of the lumber is dried by automatically controlled, high humidity steam kilns of the latest design, thus insuring a product which will not warp or twist.

DIERKS Interior Trim is famous for its soft, satiny texture. It takes paint and stain perfectly. It is easy to work, does not split and requires a minimum of sanding. TrimPaK, "The Ultimate in Trim" (see pages 190-191), is manufactured in Arkansas Soft Pine exclusively by this company.

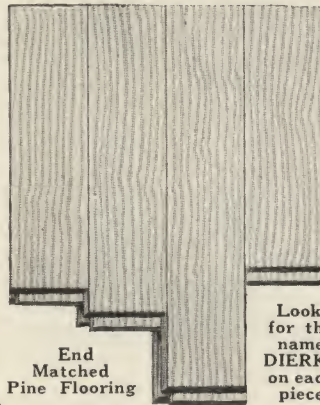


FREE
Send 10c
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Thermometers

End-Match Pine Flooring

A specialized product, combining economy of cost, beauty of appearance and lasting quality; saves labor cost, eliminates waste and gives tighter construction. Send for descriptive folder.

For over 40 years the name DIERKS has stood for quality lumber products. These products now carry the brand "DIERKS" on every piece of Interior Trim and Flooring. Specify DIERKS lumber when quality is desired. Handled by dealers everywhere.



What Users Say

From Lumber Dealers

"The car of Dierks Superior Pine Trim which we received from you has certainly proved itself to our entire satisfaction. It is bright and splendidly manufactured throughout."

"We have been selling your trim for several years and have built up a reputation on it. The quality and texture of the stock, the millwork and method of loading are all that anyone could wish for."

"Our many customers compliment us highly on your stock. We have always found it to be of the highest quality."

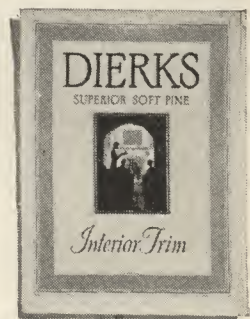
"The carload of DIERKS Rift flooring which we received is as nice a car of flooring as we have ever unloaded."

Contractors and Builders

"I have used 15,000 feet of DIERKS Superior Pine end-matched flooring on a church job in Chickasha, Oklahoma, and it gave perfect satisfaction."

"I used some of your flooring in a large store building and I think it is the best pine flooring I have ever laid. It goes together easily, the end-matching is perfect and it is a great labor saver."

"I used approximately one carload of your edge-grain end-matched Yellow Pine flooring in some school buildings and I can say that it is as nice a job as can be made with pine flooring. There is no waste and the labor of laying it is less than any other I have ever laid."



*Write for this beautiful
four color book.*



The name DIERKS on Flooring and Interior Trim is a Guarantee of Quality



For further details and
literature write to:

DIERKS LUMBER & COAL COMPANY, Kansas City, Mo.

Premier Standardized Woodwork



BUILT-IN CABINET CONVENIENCES

Factory and Main Office:
El Paso, Texas

To relieve the drudgery of housework, to make homes more attractive and livable is our object in presenting this newly improved line of built-in cabinets. Through modern, scientific manufacturing methods greater convenience has been added and the cost of production lowered so that now every home can afford some of these happy conveniences.

FOLDING SEAT—Premier No. 18—(Right)

This disappearing wall seat is handy in the bathroom or kitchen—eliminates the necessity of a chair which is always in the way. **Rough wall opening**—1' 2" wide, 2' 6 1/4" high, unpainted, white pine; complete with casing and hardware applied; carton packed, 20 lbs.

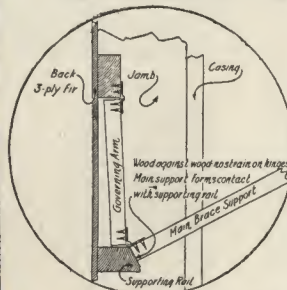
BREAKFAST NOOK—Premier No. 1A—(Below)

Engraved outline and designs facilitate two-tone painting. **Space required**—5' 0" to 5' 4" wide, 4' 6" deep, unpainted, white pine; carton packed, 120 lbs.

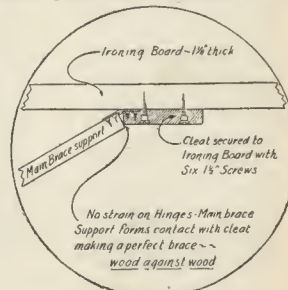


TELEPHONE CABINET—Premier No. 21

This Wall Cabinet provides a definite place for the phone, and at the same time, hides the wires and bell box behind the panel in lower section which is perforated to allow the sound of the bell to be heard. The phone book is kept in back of the rod behind phone. **Rough wall opening**—1' 2" wide, 2' 8" high; unpainted, white pine; carton packed, 18 lbs.



**BUILT-IN
IRONING
BOARD
CABINET**
Premier
No. 14
(Left)

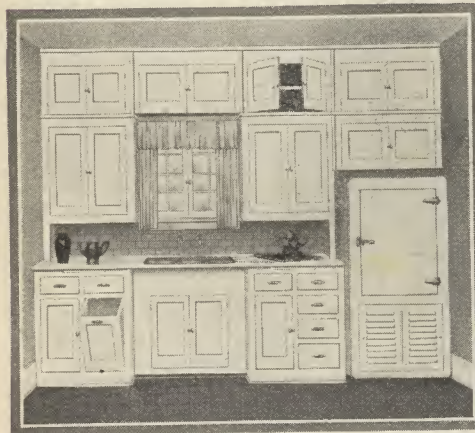
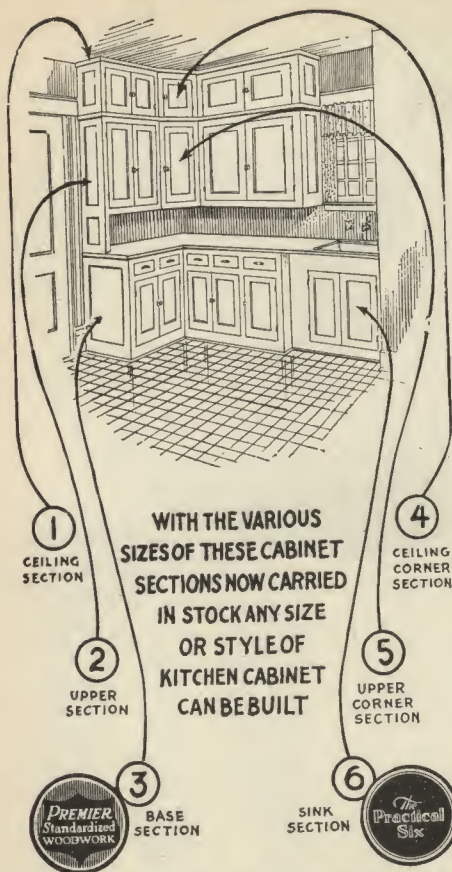


This Built-in Ironing Board Cabinet is patented as the Premier Wonder. The construction shown in circles makes operation easy with strength and durability assured. **Rough Wall Opening**—1' 2" wide, 6' 10" high; unpainted, white pine; carton packed; all hardware included, 42 lbs.

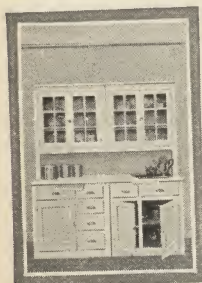
For further details and literature, write to:

Premier Standardized Woodwork EL PASO, TEXAS

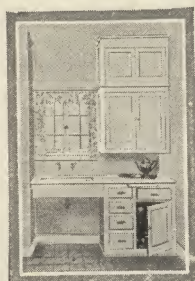
PREMIER STANDARDIZED WOODWORK



Combination B-7 with cupboard space over sink and window and ice box. This arrangement fits wall space from 9' 6" to 15' 0" wide.



Combination B-8 with glazed doors and no ceiling sections—a service cabinet. Fits any space from 2' 0" to 8' 0" wide.



Combination B-2—a three section dresser connected to sink with continuous drainboard. Fits any space from 5' 0" to 8' 0" wide.



Most Complete Line
of Ready-Built
Cabinet Work

Send for
New 1928 Catalog

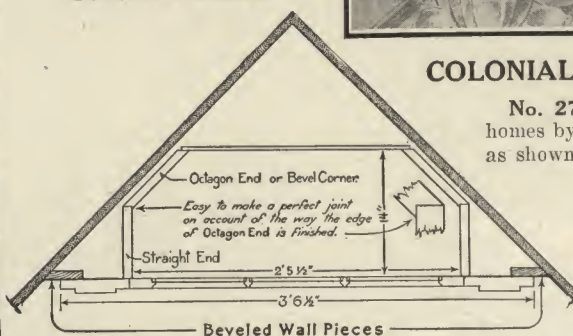
PRACTICAL
ECONOMICAL
ESSENTIAL

Made of Clear White
Pine, Unpainted
Carton Packed



COLONIAL CHINA CLOSET

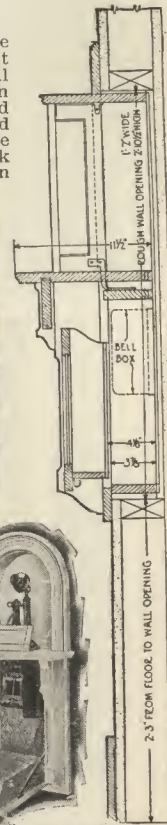
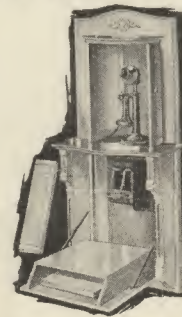
No. 27—Can be installed in old homes by use of beveled wall pieces as shown above, or in new homes in plastered angle wall. Rough opening—2' 8" wide, 6' 10" high, 12½" deep; unpainted, white pine; complete with pilasters, 183 lbs., carton packed.



TELEPHONE CABINET

Premier No. 25

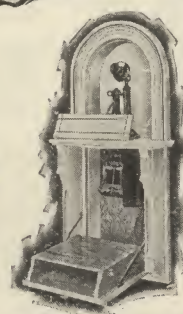
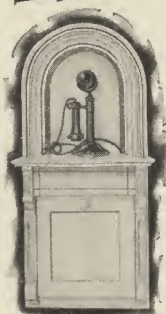
Double-action revolving doors hide the phone on the shelf which is at convenient height to talk while standing. The bell box, wires and the phone book are kept in the lower compartment. The hinged drawer accommodates the phone book and is strong enough to be used as a table for the phone if it is desirable to talk while sitting. See detail at right. Carton packed completely set up; 28 lbs.



Circle Top TELEPHONE CABINET

Premier No. 23

Although the phone is not hidden, all the ugly accessories are out of sight and this cabinet has all the conveniences of the one shown above. Rough wall opening—1' 2" wide, 3' 0" high; unpainted, white pine; carton packed, set up, 20 lbs.



For further details and
literature, write to:

PREMIER STANDARDIZED WOODWORK

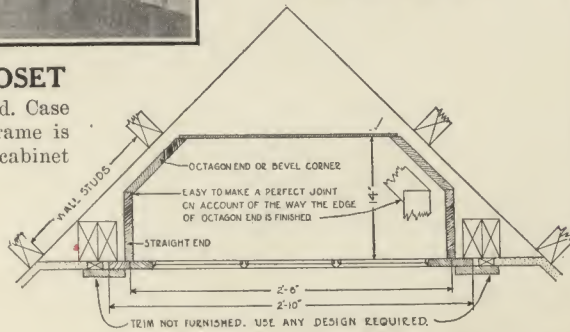
300 Mills St.
EL PASO, TEXAS

PREMIER BUILT-IN CONVENIENCES



CORNER CHINA CLOSET

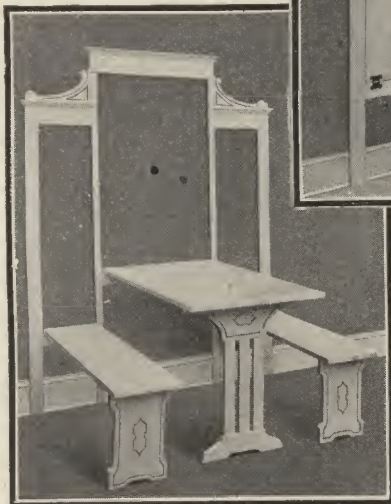
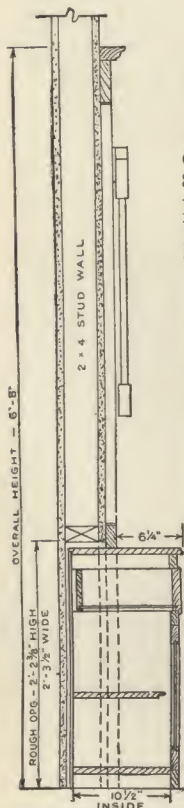
No. 28—No trim furnished. Case in same as doors. Front frame is furnished for squaring cabinet when assembling. *Rough Opening*—2' 8" wide, 6' 10" high, 12½" deep; unpainted, white pine; carton packed, 153 lbs.



FOLDING BREAKFAST NOOK

Premier No. 13

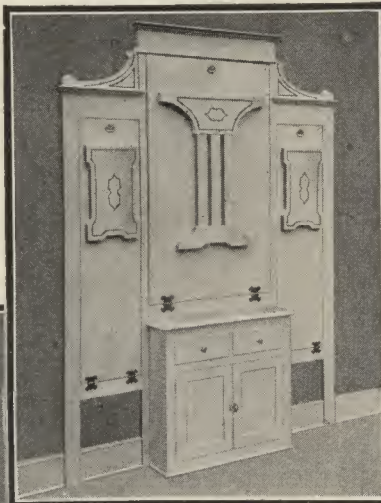
Attach to face of wall. *Overall size*—5' 0" wide, 6' 8" high; unpainted, white pine; completely set up, carton packed; all hardware applied; 80 lbs.



SERVICE CABINET

Premier No. 13A

Cabinet fits into studding under table as shown above. Cabinet 10½" deep projects only 6¼" as shown in cross section. Carton packed, K. D., 30 lbs.



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For further details and
literature, write to:

PREMIER STANDARDIZED WOODWORK

300 Mills St.
EL PASO, TEXAS

Premier Standardized Woodwork



BUILT-IN CABINET CONVENIENCES

Office and Factory:
El Paso, Texas

A convenient breakfast alcove with handy china cabinet is formed with two buttress cabinets and a Premier breakfast nook (shown at right).

BUTTRESS (or DIVIDER) CABINETS

These cabinets can be used in various ways and assembled in different styles. At the right the drawers are at the bottom. Below, as bookcases, the drawers are eliminated, while at the bottom, in the colonnade, the drawers are at the top. This flexibility also allows for variations in height. Two sizes are carried in stock.

Premier No. 36A

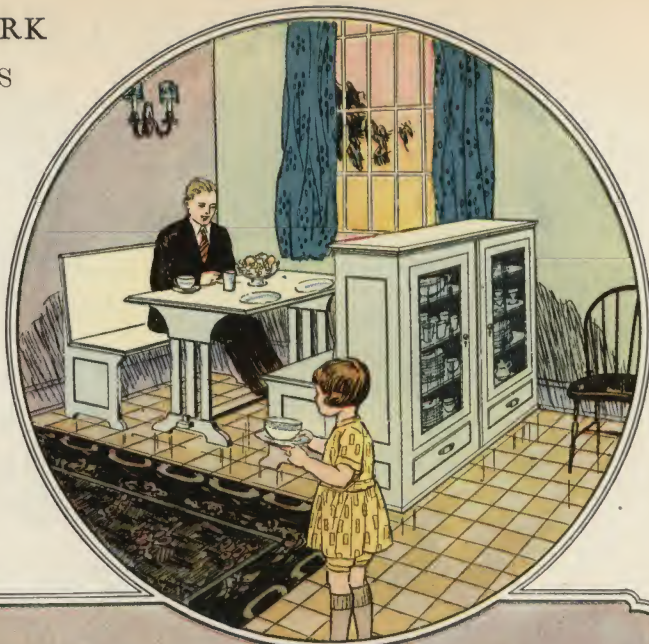
Overall size—1'10" wide, 1'1" deep, 4'10" to 4'5½" high.

Premier No. 36

Overall size—2'4" wide, 1'1" deep, 4'10" to 4'5½" high.
White pine, carton packed, K. D., 60 lbs. and 70 lbs.

BREAKFAST NOOK—Premier No. 2

Open seat ends make it easy to get in the seats. Space required—5'4" to 5'8" wide, 4'6" long; unpainted, white pine, carton packed, 125 lbs.



As shown above, a homey living room has been enhanced by the Premier buttress cabinets and the Premier Colonial Mantel.

COLONIAL MANTEL—Premier No. 30

Overall size—5' 6" wide, 4' 6½" high; fits most common grate openings, white pine, 85 lbs.

An attractive bookcase can be built of Premier Buttress Cabinets with the backs against wall. One cabinet will make a complete bookcase, as two paneled ends are furnished with each cabinet. When two or more buttress cabinets are used together, as shown at left, it is necessary to cover the joint or joints with a lattice strip. It is also necessary to supply a double-length top, as tops regularly furnished are only long enough to cover a single unit.

When a pair of buttress cabinets are used in a colonnade opening, as shown at left, one cabinet can face the dining room and the other the living room—one as a china closet, the other as a bookcase; or both can face the same room. The flexibility of these cabinets makes them practical for many uses.

These Premier Buttress Cabinets are not only practical for homes but also for offices—bookcases for lawyers, instrument cases for physicians, display cases for archaeologists, etc.

Write for the New Premier 1928 Catalog—
Hundreds of Suggestions for Builders

For further details and literature, write to:

Premier Standardized Woodwork

EL PASO,
TEXAS

World's Most
Beautiful Door

PAINE MIRACLE DOOR

Patented
July 10, 1923

Branch Offices
and Display Rooms:

Made by
PAINE LUMBER COMPANY, Ltd.
Oshkosh, Wisconsin

Branch Offices
and Display Rooms:

NEW YORK, N. Y.
202 Metropolitan Life Bldg.
WASHINGTON, D. C.
726 Woodward Bldg.
CLEVELAND, OHIO
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2305-2309 Tribune Tower
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11-221 General Motors
Building
KANSAS CITY, MO.
606 New York Life Bldg.
MIAMI BEACH
1661 Lenox Ave.



The Paine Miracle Door gives beauty and distinction to the home, yet it is not an expensive door. In softwood the Miracle Door costs only about one dollar more than a one-panel softwood door while in hardwood the Miracle Door costs no more than a one-panel hardwood door.

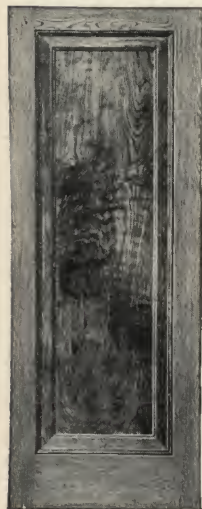
to 3x7', each size being obtainable in two thicknesses—1½" and 1¾".

Beautiful Catalog on Request

It is impossible to do justice to the Miracle Door in these small illustrations but we will gladly mail you on request our 60-page catalog containing many beautiful illustrations in color, showing the exact appearance of door with suggestions for appropriate wall finish.

All Woods—All Sizes

Paine Miracle Doors are made in all woods and in all sizes from 2x6'



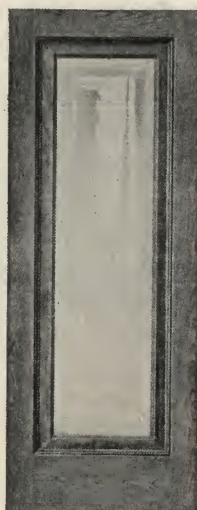
DESIGN 700

A beautiful single panel door that in hardwood, natural finish, or softwood, painted or stained, harmonizes with any style of interior decoration.



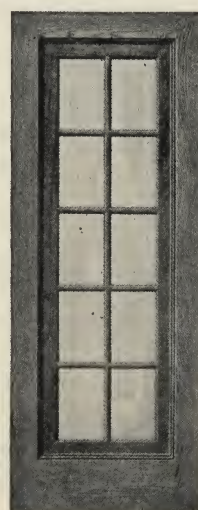
DESIGN 703

A good door to use in locations where light is needed.



DESIGN 704

A full glazed door for front entrance or vestibule.



DESIGN 705

A French door which may be used as entrance door if desired.



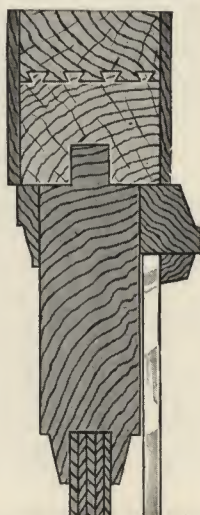
DESIGN 706

Most beautiful French door made. Used single or in pairs this door gives distinction and charm to the home in which it is used.



DESIGN 701

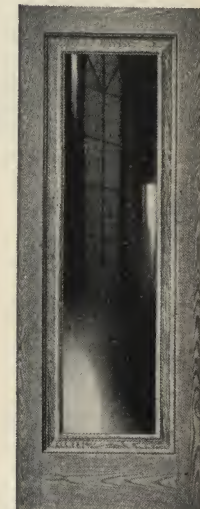
The Miracle Mirror Door can be quickly made from a stock Miracle panel door. Diagram at right shows cross section of hardwood door with mirror. Back of door matches Design 700.



Standard Sizes of Miracle Doors

The following sizes are carried in stock for immediate shipment. Sizes printed in black type can be furnished from stock in either Birch Veneer or Softwood, 1½" thick. Sizes printed in light face type are stocked in softwood only, 1¾" thick: Sizes followed by an asterisk (*) can be shipped from stock in Birch Veneer, 1¾" thick. Miracle Doors can be made of any wood, any size, to order.

| | |
|-----------|------------|
| 2- 0x6-0 | 3- 0x6- 8* |
| 2- 0x6-6 | 2- 0x6-10 |
| 2- 2x6-6 | 2- 6x6-10* |
| 2- 4x6-6 | 2- 8x6-10 |
| 2- 6x6-6* | 2-10x6-10 |
| 2- 8x6-6 | 2- 0x7- 0* |
| 2- 0x6-8* | 2- 2x7- 0* |
| 2- 2x6-8* | 2- 4x7- 0* |
| 2- 4x6-8* | 2- 6x7- 0* |
| 2- 6x6-8* | 2- 8x7- 0* |
| 2- 8x6-8* | 2-10x7- 0* |
| 2-10x6-8* | 3- 0x7- 0* |



DESIGN 702

This Mirror Door is made with mirror set on insert frame. The use of a narrower and shorter mirror results in a considerable saving in cost. Diagram at left shows cross section of softwood door with mirror.

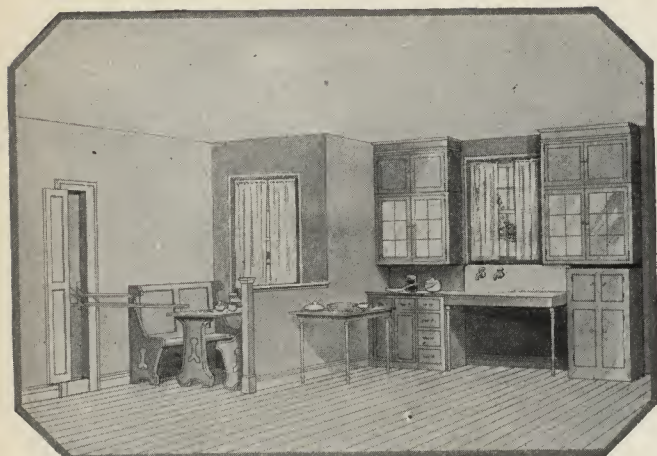


For further details and literature write to:

PAINE LUMBER COMPANY, Ltd.

Oshkosh, Wisconsin

MORGAN WOODWORK



Ironing Board Cabinets, Breakfast Nooks, Combination Kitchen Cabinets

Known the Nation Over for Its Sterling Quality and Fine Workmanship

INTO every bit of Morgan Woodwork go years of practical experience, countless experiments with methods and machinery, the finest of woods carefully chosen for their fitness and the sincere determination of a great organization to build only the best.

Doors, sash, cabinet-work—all through the line—quality is always kept uppermost. Anyone can make a door or a window but it takes skill and experience to build the kind of quality doors, windows and all other woodwork that bear the Morgan stamp.

To you that stamp is the assurance of satisfaction—a guarantee that you will get full value for every woodwork dollar.

"Morgan-Quality" is more than a mere slogan or just selling talk. It is an actuality proven by three generations of use.

It is the result of careful supervision in every stage of manufacture from the forest to the finished product. But remember, that despite all this additional effort to keep up our high standard, "There is no added cost for Morgan Quality."

BUILT-IN CONVENIENCES

Something to Add to the Beauty of the Home and Make It More Liveable



M-376½A

New! Genuine Colonial China Case

Built-in Colonial China Closet

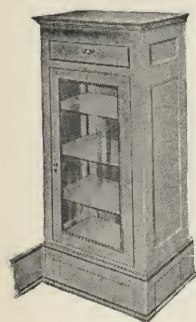
This beautiful Colonial Cabinet is designed to set either in corner of room or to be built into any side wall where space is available to take care of the depth of cabinet.

Rough wall opening 3 ft. wide, 1 ft. 3 in. deep, 7 ft. 2½ in. high. Over all size 3 ft. 7 in. wide, 7 ft. 6 in. high. Glazed. No Hardware included.

[Write for Complete Catalog]



Design M-395½

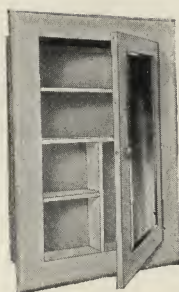


M-399½

Buttress Cabinet

A convenient practical place to put china, dishes, etc. Over all sizes as follows: 2 ft. 4 in. wide, 4 ft. 6 in. high, 13 in. deep.

Three shelves—Back made with Two Fir Panels.



M-487

Recess Cabinet

In the White Unfinished. Size 21x27 inches, 2½-inch casing. Recess part going in wall, 17x23 inches, 4 inches deep. Interior arranged for long bottles. Bevel plate glass mirror, 12x18 inches. Door hinged. No hardware included.



M-436-X

"SNAP"

Cabinet Iron Board Here Is a Worthwhile Addition to any kitchen.

Board (including sleeve board) is made of Sugar Pine, balance of cabinet is constructed of well kiln-dried Fir. The board is full ¾-inch thick, assuring strength and rigidity not obtained in thinner boards. This board can be installed in 2-inch x 3-inch or 2-inch x 4-inch studding, the rough opening should be 14 in. x 6 ft. 9 in.



M-397

Folding Breakfast Table and Ironing Board

Rough Wall Opening—1 ft. 4½ in. wide, 6 ft. 10 in. high.

Doors—Top, 1 ft. 2½ in. wide, 4 ft. 2½ in. high. Bottom, 1 ft. 2½ in. wide, 1 ft. 9½ in. high. Each door 2 panels, 3-ply Fir.

Table—2 ft. 4 in. wide, 4 ft. long (ready for use). Height from floor, 2 ft. 6 in. Hardware—Hinges and catches for doors wrapped separately and packed in cabinet. Hinges and metal support for gate leg and special flush type self-bracing hinge for folding leaf applied at factory.

THESE PAGES SHOW ONLY A SMALL PART OF THE LARGE ASSORTMENT OF MORGAN WOODWORK LISTED IN THE MORGAN PRICE SUPPLEMENT—WRITE DEPT. HBC FOR COPY

MORGAN WOODWORK

Sold by Leading Lumber and Millwork Dealers
Everywhere



PORCH WORK

Like the open deck of an ocean liner, the open Colonial porch, to the left, affords a place of peaceful rest and cooling slumber in hot weather.

The Morgan line of woodwork includes a complete assortment of porch work—rails, balusters and columns in many different designs to suit every taste. Constructed of fine woods by the skilled Morgan Craftsmen.



Solid Raised Panels

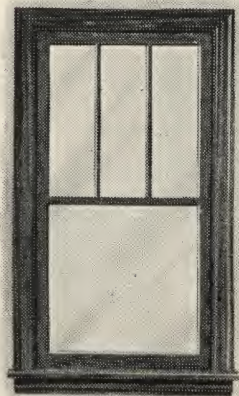
GARAGE DOORS

Morgan Garage Doors are sturdily built of the finest materials. Exposed to the hot, blistering summer sun, winter's snow and cold and constant hard use, they "stand the gaff" long and well.

They cannot sag or pull apart since they are riveted together with wood dowels, reinforced with corrugated metal pins driven through each end—all clear lumber cut vertical grain full length and thickness is used—all four corners are seived or rounded so that the stiles will not split—and solid raised panels rigidly reinforce the door.



M-2158½



M-1005½

BETTER BUILT WINDOWS

Much of the pleasure to be derived from otherwise splendid houses is often marred by rattling glass in windows and doors—by badly fitted, poorly made frames and sash.

This is one of the most common faults in buildings. Home owners endure it only because they believe it unavoidable.

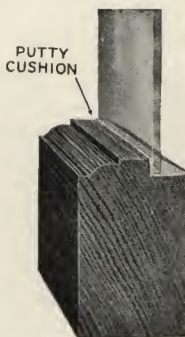
It "grates on one's nerves," it points out defects to visitors whose opinions we cherish, it causes drafts which menace health, it is downright wasteful, making excessive demands on the fuel supply. Yet, it is wholly unnecessary. Window troubles, like all other common errors of home building, can be avoided by a little careful thought. Simply specifying Morgan Frames and Windows insures absolutely permanent freedom from all these annoying experiences.

WINDOWS BEDDED IN PUTTY

The glass in the Morgan windows is bedded in putty and back puttied. (See illustration to right.)

Pure linseed oil putty, made by a special process according to an exclusive Morgan Formula is used—never the common, commercial kind. Our putty completely surrounds the edges of the glass, forming a solid, yet plastic cushion which absorbs shocks, excludes drafts and rain and prevents breakage. Morgan Putty forms a perfect non-chip, non-crack binder, uniting wood and glass into a complete unit.

Inferior windows are made hurriedly and with small regard to the quality of putty and its application. The result is a constant rattling of glass and excessive breakage. Be sure always—Use MORGAN WINDOWS!



COLONIAL STAIRWORK



Architecturally Correct

A few of the different parts entering into the construction of our Colonial stairways are shown and described below. They are carefully made by skilled craftsmen with the best of materials. Here's more than just beauty of line and finish, in addition a sturdy construction that assures satisfactory service for years to come.

The pleasing grace of the Colonial design has lasted for generations—and yet it is just as popular today as it was in the days of Washington.

Quaint, homelike, nothing is better suited to the home of the American than this happy, cheerful design.

The stair parts shown here are original Colonial designs.



M-1777-A

Volute with Easement Fitted



M-1777-J
Newel Cap and Easing

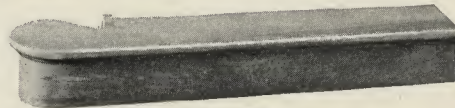
M-1777-B
Goose Neck



M-1784
Baluster



M-1749½
Starting Newel



M-1726-A

Philippine Mahogany, Birch, Oak or Oak Tread and Philippine Mahogany, Birch Riser, Scroll End Starting Step (Right or Left)

MORGAN SASH and DOOR CO.
Chicago Detroit

MORGAN COMPANY
Oshkosh New York

MORGAN MILLWORK COMPANY
Baltimore Jersey City Greensboro

SAW MILL OPERATORS
Orin, Wash. Forrest City, Ark.

MORGAN WOODWORK

Sound Resisting Door

FLUSHWOOD

(PATENTED)

[The Greatest Improvement in
Door Construction in 20 Years]



FLUSHWOOD
(Patented)
SOUND RESISTING

For Residential, Apartment, Hotel, Hospital and Sanitary Construction

A remarkable new door! Acclaimed by architects, builders and engineers as the greatest improvement in door construction in years.

Flushwood fills a long felt need for maximum sound resistance in a flush type door, and offers the sturdiest, long-lived construction possible.

You can now obtain a beautifully inlaid door with all of Flushwood's added advantages—increased attractiveness—lighter weight—and easily handled and installed, for the same price as an ordinary flush door.

Flushwood Features

Flushwood weighs only two-thirds as much as a regular flush door, affording a great saving in freight, handling and fitting.

Further, this wonderful new door will not warp or twist. Its patented construction prevents it.



Wedge
Dowel

Flushwood is made with different combinations of woods, giving new beautiful color and grain effects when finished that are impossible to secure in the ordinary flush door.

This remarkable door is different. It is the only door that gives so much for so little cost.

For full, complete description and detailed drawing of Flushwood write our nearest office for our beautifully colored, illustrated and descriptive catalog.

It will pay you to investigate this new door!

Unless otherwise specified, we inlay Flushwood doors as follows: Ebonized Inlay for Plain Red Oak, Plain White Oak, Quarter Sawed Red Oak, Quarter Sawed White Oak, Brown Ash, Calico Ash, unselected Gum, unselected Birch, Philippine Mahogany, African Mahogany.

White Maple Inlay for selected Red Gum and selected Red Birch.

Construction

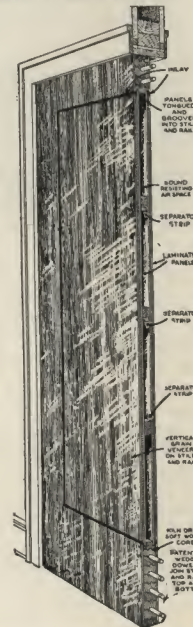
Flushwood is constructed unlike any other door on the market. It consists of two vertical stiles, a top rail and a bottom rail, all of which have vertical grained veneers. The entire door is vertical grain and panels on each side of door are flush with the surface of the stiles and rails.

There is a dead air space between the panels which acts as a sound-resisting medium.

The outside edges of the panels are tongued and grooved into the stiles and rails and the backs of the panels are securely glued to separating strips, which are mortised into the stiles, giving added strength to the door.

The joint between the outer edges of the panels and the inner margins of the stiles and rails is covered with a decorative inlay strip $\frac{1}{4}$ " wide. This beautiful inlay strip on each side of the door is an essential and outstanding feature of Flushwood.

Panels are $\frac{1}{2}$ " laminated. Stiles and top rail $5\frac{1}{2}$ " wide, bottom rail 12" wide, separating strips $1\frac{3}{4}$ " wide. Veneers $\frac{1}{8}$ " thick before sanding.



MORGAN SASH and DOOR CO.
Chicago Detroit

MORGAN COMPANY
Oshkosh New York

MORGAN MILLWORK COMPANY
Baltimore Jersey City Greensboro

SAW MILL OPERATIONS
Orin, Wash. Forrest City, Ark.

MORGAN WOODWORK

Two of the Most Popular Doors in America

Desirable for Use in most all Types of Modern Buildings



M-777 Lockwood



Beautiful— **LOCKWOOD**

A popular design, especially appealing in its simplicity. You'll like Lockwood, not alone for its appearance, but because of its superior construction as well.

All wood—not a nail used anywhere. Lockwood is bound into a firm, solid unit through the use of the wedge dowels—an exclusive Morgan feature.

The mouldings are worked on solid right out of the stiles and rails—not merely nailed or glued on.

Here's door service and satisfaction for years on end. Sturdy construction insures ease of operation without sticking or jamming.

Lockwood is a great door and well worthy of any building where it may be used.

Sturdy— **WEDGEWOOD**

One of the most pleasing Morgan Door designs.

Wedgewood has long held a place of leadership in popularity and use because of its outstanding beauty and unmatched sturdiness. Like all other Morgan doors it is built by master craftsmen—welded into a solid unit with the patented wedge dowels and only the finest of woods find their way into its make-up.

For trimness of line and individuality of appearance, few doors can equal Wedgewood. The neat moulding on the panel gives it a charm and distinction of its own.



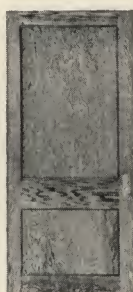
M-721 Wedgewood



A FEW MORGAN DOORS USED EXTENSIVELY IN ALL PARTS OF THE COUNTRY



M-705



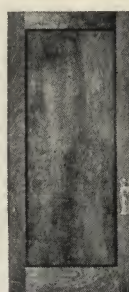
M-700



M-827



M-612



M-703



M-611



M-684

THESE PAGES SHOW ONLY A SMALL PART OF THE LARGE ASSORTMENT OF MORGAN WOODWORK LISTED IN THE MORGAN PRICE SUPPLEMENT—WRITE DEPT. HBC FOR COPY

TRIMPAK—Highest Grade Interior Finish

TRIMPAK CORPORATION, 44 Whitehall St., New York, N. Y.

Interior Trim for Doors and Windows in Cartons



As Package
Is Shipped from Mills



Made in 15 Different Woods

| | |
|-----------------------|--------------|
| Arkansas Soft Pine | Super-Tupelo |
| Pondosa Pine | Douglas Fir |
| Birch | Oak |
| Philippine Mahogany | Chestnut |
| Soft Yellow Poplar | Basswood |
| Louisiana Red Cypress | Red Gum |
| Medium Texture Poplar | Sap Gum |
| Yellow Pine | |

Product

TrimPak is interior finish for doors and windows of the highest grade, cut to approximate lengths at the mill to insure perfect quality, to minimize waste and to guarantee delivery in perfect condition. TrimPak is made on special machinery in seven famous lumber manufacturing plants in all the species and patterns desired by good builders in the various sections of the country. The necessary trim for each door or window is shipped in two sealed cartons, one containing the vertical parts and the other the horizontal parts. TrimPak is sold through retail lumber dealers throughout the United States. The product is covered by broad, basic patents in the United States and Canada.

Advantages to Building Contractors

You get trim of the highest grade in perfectly seasoned wood, already cut to approximate length and assembled for quick erection. Our careful inspection insures delivery to you without defect. Under the old method of handling trim the carpenters spent a large percentage of their time looking for different pieces to fit the particular openings they were trimming, matching stock and sanding. Many times when the job was finished they were over or short on some or all the



Opened Carton Showing
How Pieces Are Securely Packed

items, which meant material wasted or time lost waiting for additional stock. With TrimPak only half the saw cuts formerly made are required.

Advantages to the Lumber Dealer

You handle trim in standard packages—every piece perfect and cut to approximate length by accurate, automatic machinery—instead of receiving mixed carloads of random lengths which must be sorted, stored, and got out of stock by a slow, laborious process every time an order is being filled. It is impossible to keep an evenly balanced stock of long trim—difficult to keep a correct inventory. Each carton of TrimPak is plainly labeled with name of wood and size of window or door opening. When filling an order for any kind of door or window trim it is only necessary to take two cartons from stock, a long carton containing the vertical parts and a short carton containing the horizontal parts.

Order From Your Lumber Dealer

Builders desiring to use the modern TrimPak method of applying interior trim may order directly from their local lumber dealers. Every lumber dealer in the United States can readily obtain TrimPak in the woods and patterns used in his community. Further information may be had direct from the TrimPak Corporation at the address printed below.



For further details and
literature, write to:

TRIMPAK CORPORATION

44 WHITEHALL ST.
NEW YORK, N. Y.

INWALL BREAKFAST NOOKS

TRIMPAK Corporation, 44 Whitehall St., New N. Y.



The Inwall Handinook Model No. 3. For general use, either in kitchen, dining alcove or living room. Has a table and two benches, as shown. Table top is 23 3/4" wide and 40" long. Seats four people comfortably. Each set shipped in three cartons, ready for installation. Trim furnished when desired. Total opening size, 57 1/4" wide x 43 3/4" high. This model also furnished with mantel and 3-panel plate glass mirrors, opening height 62 3/4".



The Inwall Prestonook Model No. 4 with Ironing Board. Seats six persons comfortably. The table top is in two sections, which fold back to reveal the ironing board. Furnished without ironing board if desired, with table top in one section. Table top is 23 3/4" wide by 54" long, benches are 11 3/4" wide by 54" long. Each set shipped in three cartons, ready for installation. Trim furnished when desired. Total opening size, 57 1/4" wide x 59 3/4" high.

The Breakfast Nook Perfected

The breakfast nook, a modern space-saving necessity in homes and apartments, attains new levels of beauty, utility and convenience in the Inwall. Never before have compactness, ease of operation and general usefulness been combined in such a single, simple sturdy unit, as solidly built as the finest house. Shipped ready for instant installation in any convenient wall space, set into the wall or on the wall, as the models shown demonstrate.

Ease of Operation

These nooks embody in their operation the ancient factors of leverage and gravity. The units open and close with a single motion of the hand, silently. The pinioned position of the table when open establishes a strainless, rigid support which will sustain a weight exceeding 200 pounds at the free end of the table. Its simple, natural design eliminates obstructive under-supports. There is nothing to get out of order. Table and bench tops are paneled to add strength and prevent warping. All surfaces are sanded.

Shipped Complete—Quickly Installed

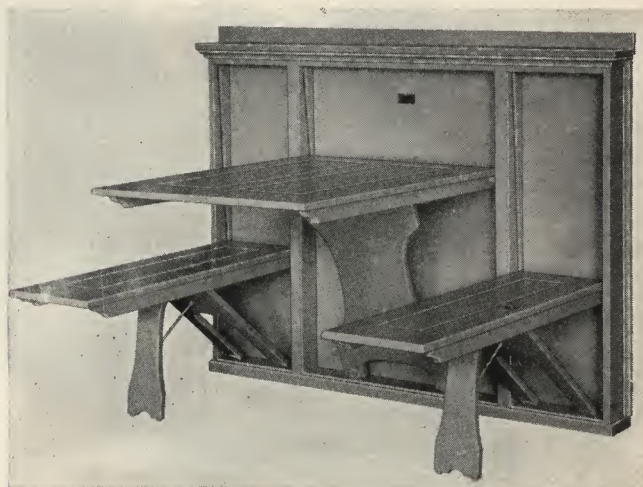
Each Inwall table and bench is carefully packed in a strong carton at the factory, so that it reaches the job clean and dry, requiring no resanding before painting. Inwall Breakfast Nooks are quickly installed at small labor cost. The built-in units fit into studding openings of standard "on center" spacing with no complicated structure necessary in the wall. The Inwall fits into a 4-inch partition so that its frame is flush with the wall, leaving ample space for plaster key on reverse side. It is only necessary to nail the frame to the studding. These nooks are shipped complete ready for installation. No doors, no other special millwork, or hinges or special hardware, are required. You have a complete breakfast nook installation with one purchase, except, of course, the paint or varnish you will use, and trim for the built-in nooks.

Our Guarantee

Every Inwall Breakfast Nook is guaranteed as to quality and workmanship. Each Inwall model is furnished either built-in or in cabinet form.

Adaptability—Woods in Which Made—Where Sold

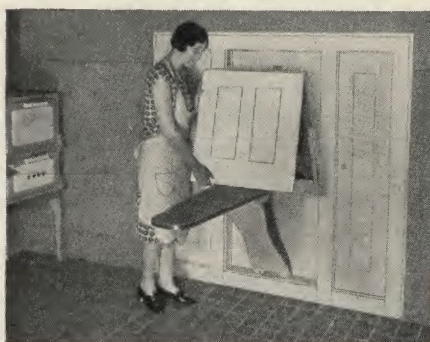
The nooks are adaptable for use with only one bench, or with no bench, as space limitations may require. Inwall



Inwall Cabinetnook No. 3. Fits against surface of any wall. Table and benches are same size as Handinook No. 3. Shipped complete, as illustrated, including trim, in four cartons. Quickly assembled. Overall Size, 52 7/8" wide x 44 3/4" to top of mantel shelf.

Nooks are furnished in yellow pine, white pine and other softwoods, and in mahogany and other hardwoods. They are sold by leading lumber and building speciality dealers throughout the United States.

Below—Prestonook with ironing board revealed.



Below—As an Inwall Nook appears closed, illustrated by the Cabinetnook.



For further details and literature, write to:

TRIMPAK CORPORATION

44 WHITEHALL ST.
NEW YORK, N. Y.

Bessler Disappearing Stairways

Manufactured by

THE BESSLER DISAPPEARING STAIRWAY CO.

Akron, Ohio

Model 50



The lowest priced complete disappearing stairway made

Slides up into the ceiling when not in use

Only a neat panel, as shown above, is visible from below.

In most every home where more space is desired, that spare bedroom, sewing room, den, play room, or extra storage space can be had by fully utilizing the attic.

An ordinary stairway built to the attic takes up so much valuable space on the floor below as to greatly offset the value of the attic space.

A Bessler Disappearing Stairway solves the problem perfectly. It is a full sized, substantial, good looking stairway that takes up no useful space below, for when not in use, it slides up into the ceiling. There it remains concealed above a neat panel, finished to match the other woodwork of the room.

A gentle pull at the suspended chain opens the panel and allows the stairway to glide smoothly and slowly down into place. It is so perfectly counterpoised by strong springs concealed in drums as to prevent any sudden or jerking movement. A light push starts it back into position. The weight is so nearly taken up by the counterpoised springs that a child can operate it with the greatest ease.

The Bessler adds at least \$1,000 to the value of any house by making the attic conveniently accessible. Its cost is but a small part of this amount. Any carpenter can easily install a Bessler in a few hours, in either a new or an old house. Clear simple directions for installing come with every unit.

Specifications of Model 50

Has all the noteworthy Bessler features, but is of lighter materials and is six inches narrower than our standard size Model 97.

Sizes 7 ft. 7 in., 8 ft. 1 in., 8 ft. 7 in., and 9 ft. 1 in. floor to floor, have a rough opening 2 ft. 2 in. by 5 ft. 8 in. and finished opening between jambs 2 ft. by 5 ft. 6 in. Sizes 9 ft. 7 in. and 10 ft. 1 in. require rough opening 2 ft. 2 in. by 6 ft. 2 in. and finished opening 2 ft. by 6 ft.

This is a well made, substantial, good looking stairway, fully covered by our regular guarantee, just the thing for small cottage or bungalow.

Excellent ventilation is afforded by leaving the stairway part way down.



A mere touch of the hand, and it slides noiselessly up or down.

Ask any Dealer or send for complete descriptive literature.



For further details and literature write to:

THE BESSLER DISAPPEARING STAIRWAY CO.

AKRON OHIO

Bessler Disappearing Stairways

Manufactured by

THE BESSLER DISAPPEARING STAIRWAY CO.

Akron, Ohio

The Bessler Is the Pioneer;
on the Market for 20 Years

The Bessler solves
the space problem in
Residences, Summer
Cottages, Garages,
Stores and Public
Buildings.

Specifications of Model 97.

This is our standard full size disappearing stairway. All metal parts are of stamped steel. Panel is hung on adjustable hinges that bring it flush with the ceiling, no matter how wide the floor joists. Panel is left white so it may be finished to match other woodwork. Remainder of stairway is primed with medium dark stain. All heights from 7 ft. 7 in. (floor to floor) to 12 ft. 7 in. Rough openings all 2 ft. 8 in. wide; finished 2 ft. 6 in.; and from 5 ft. 10 in. to 8 ft. 1 in. long, depending on size of stairway.



The Bessler Is
Also Made in
All-Steel as
Illustrated for
Fire-proof Buildings

Model 97

Hand Rail
May Be
Placed on
Either Side

The Bessler Guarantee

You can have the use of the Bessler for one month, and if it does not prove satisfactory, return it to us at our expense. The Bessler Disappearing Stairway is warranted to last as long as the life of the building.

J. E. Bessler
PRESIDENT

For further details and
literature write to:

THE BESSLER DISAPPEARING STAIRWAY CO.

Akron
Ohio

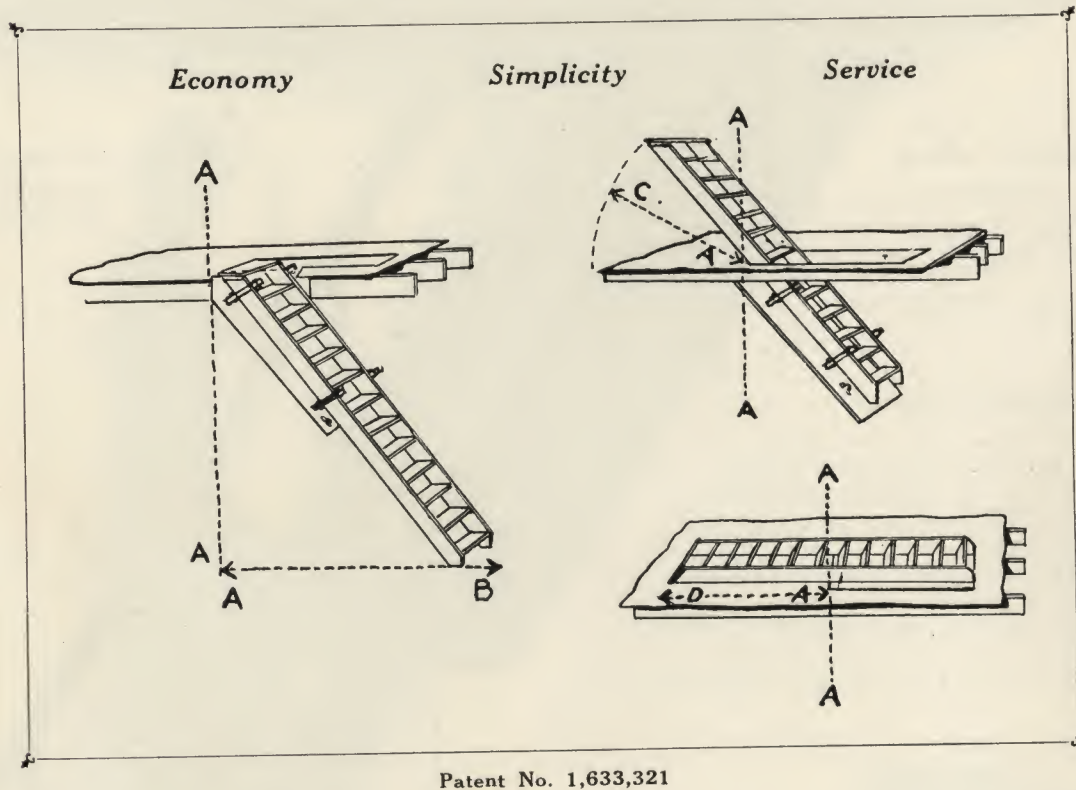
F R A Z I E R

SELF-BALANCED CONCEALED STAIR

Made by
FRAZIER STAIR CO., PITTSBURGH, PA.

The Simplified Disappearing Stairway. Shipped completely assembled, including Jamb.
 No Weights, Springs, Cable or other Mechanical Control.

Price \$35.00 F. O. B. Pittsburgh, Pa.



Patent No. 1,633,321

THE GREATEST IN DISAPPEARING STAIRS

STAIRS should be ordered specifying exact floor to floor height, and also size of joist around opening space. In framing opening three dimensions must be considered to provide sufficient operating space. 1st, Run on floor below, 2nd, Operating Radius under roof, and 3rd, Run on floor above. Reference to following table of measurements, shows exact dimensions required by various models.

| Model No. | Rough Opening Space | Floor to Floor Height | Run Downstairs Dimension A to B | Operating Radius Dimension A to C | Run Upstairs Dimension A to D |
|-----------|---------------------|-----------------------|---------------------------------|-----------------------------------|-------------------------------|
| 1 | 26 1/2" x 50 1/2" | 8' 2" to 8' 7" | 55" | 64" | 66" |
| 2 | 26 1/2" x 50 1/2" | 8' 7" to 8' 11" | 62" | 67" | 70" |
| 3 | 26 1/2" x 52 1/2" | 8' 11" to 9' 2" | 60" | 70" | 74" |
| 4 | 26 1/2" x 52 1/2" | 9' 2" to 9' 7" | 60" | 72" | 78" |
| 5 | 26 1/2" x 57 1/2" | 9' 7" to 10' | 66" | 78" | 84" |

No Home Complete Without an Attic Stairway



For further details and literature, write to:

FRAZIER STAIR CO.

2615 W. Liberty Ave.
 PITTSBURGH, PA.

Marschke Folding Stairs

Manufactured by

THE MARSCHKE COMPANY

St. Paul, Minn., and Columbus, Ohio



Wherever there is a room above, having no stairway to it, this Marschke Folding Stairs solves the problem and fills the need completely. These Folding Stairs are in use in all sizes and types of buildings.

Installation of these Stairs is easily accomplished because they come all set up with jambs, casings and panel fitted at the factory, ready for the opening. No bolts or screws are needed, just a few nails where directed and the job is done.

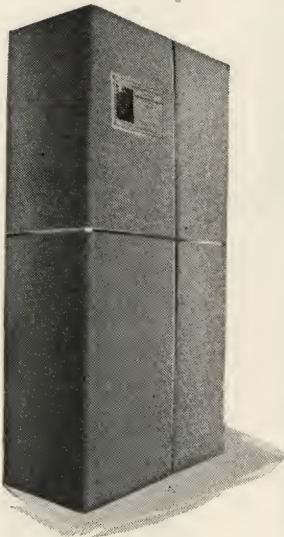
Operation of the Folding Stairs is made easy by its simple mechanism and its perfect balance. A child can open or close it from above as well as from below.

Obstruction of the attic floor while the Stairs is closed is entirely eliminated as our Stairs folds over its own panel. No rafter clearance is needed as the Folding Stairs requires less than eighteen inches of operating space above the attic floor.

Roofs of flat buildings can be reached and made useful by means of the Folding Stairs. This without loss of valuable floor space below as the Stairs folds into the manhole and is protected by the storm cover when not in use.

Hinged rigidly to the header by means of heavy "T" hinges, Marschke Stairs eliminate all danger of a slip or fall. With strong hanger arms supporting each side stringer, a light, strong and rigid stairs is made possible.

Woodwork of Marschke Stairs is of very good grade, well fitted and finished and stained a medium dark. The panel and casings are of fir or of any of the hard woods at a small additional charge, and are left in the "white" to be finished to match other woodwork, after installed. Hardware is of high grade material and is finished in aluminum.



This dust-proof carton contains one complete Marschke Stairs, assembled and folded up, ready for the opening. In this carton the Stairs will arrive on the job in clean condition. There is no danger of the Stairs becoming shop worn in temporary storage.

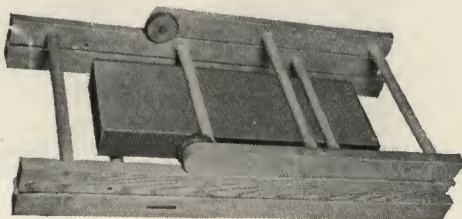
Size No. 1, 7'0" to 10'0" floor to ceiling. Rough opening, 30½" by 60". Finished opening, 28" by 58". Shipping weight, 120 lbs.

Size No. 2, 10'0" to 12'6" floor to ceiling. Rough opening, 30½" by 70". Finished opening, 28" by 68". Shipping weight, 140 lbs.

The Folding Stairs is the lowest priced complete disappearing stairs made.

Marschke Folding Ladder

This Ladder is shipped folded up as shown in illustration, with complete set of hardware and instructions for installing. It folds in the same manner as our Stairs. No jambs, panel or casings are furnished but can be applied. Ceiling opening 22½" by 54". Shipping weight, 45 lbs. Price \$25.00 F. O. B., factory. This Ladder will fit into ceiling where joists are spaced 24" centers, without cutting any joists.



We guarantee Marschke Folding Stairs and Ladders to be as represented. Any defective parts will be replaced without charge.

The springs of these Stairs are made of high grade spring steel, rolled cold, and will last as long as the building.

All Marschke Stairs and Ladders are guaranteed to give satisfaction.



For further details and literature, write to:

THE MARSCHKE CO.

ST. PAUL, MINN., and
COLUMBUS, OHIO

UNION METAL COLUMNS

Made by
THE UNION METAL MANUFACTURING CO.
 Canton, Ohio

Chicago Office: 230 So. Clark St. Los Angeles Office: Detwiler Bldg.
 New York Office: 110 E. 42nd Street

Products

UNION METAL COLUMNS AND
 PILASTERS.



Stock and Special Designs

We offer the ten classical designs shown herewith. We also build metal columns and pilasters to conform to architects' details (except Design 240, which is furnished in stock sizes only).

Our portfolio of designs and installations shows many buildings where our columns have been used and a large number of attractive Colonial entrances. Write for Column Catalogue No. 50-C entitled "Union Metal Columns and Pergolas."

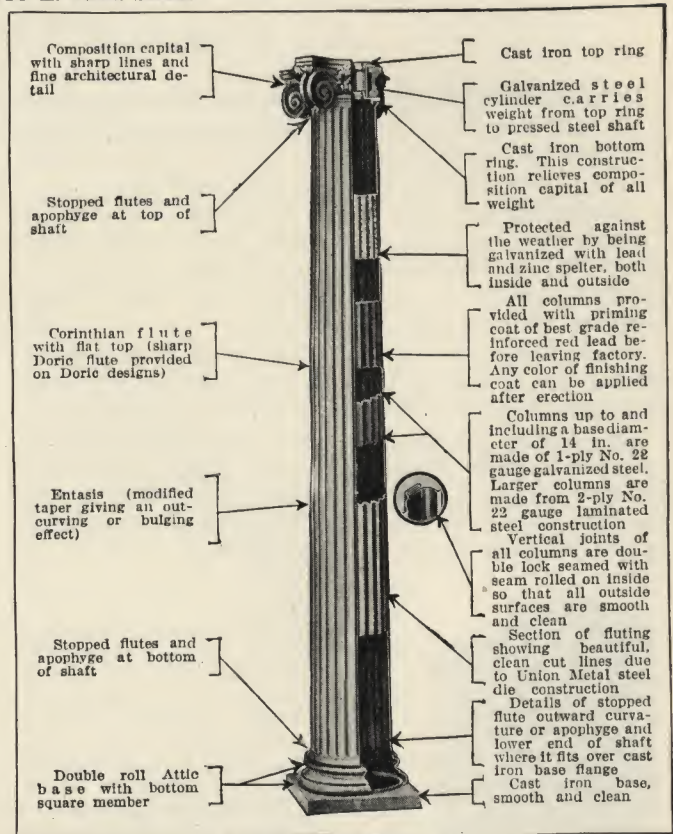
Advantages of Union Metal Columns

- (1) Architecturally correct.
- (2) Clean cut, highly ornamental and stately.
- (3) Will not rot, check or open at joints.
- (4) Fireproof and weatherproof.
- (5) Have entasis and stopped flutes.
- (6) Not experimental, but used on thousands of representative buildings in the United States and abroad.
- (7) Indestructible and will outlast the buildings; suitable for all climates and temperatures.
- (8) Easily handled, transported and erected because of their light weight.

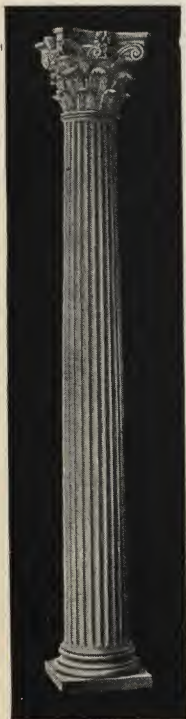
RESULT OF RECENT TEST ON UNION METAL COLUMNS
 Test made by Robt. W. Hunt & Co.

| | *Small column, lb. | †Large column, lb. |
|---|--------------------|--------------------|
| Bottom fillet (apophyge) bent at ... | 5,840 | 16,240 |
| Top fillet (apophyge) bent at..... | 6,580 | 16,700 |
| Column buckled near top at (maximum load) | 27,220 | 29,960 |

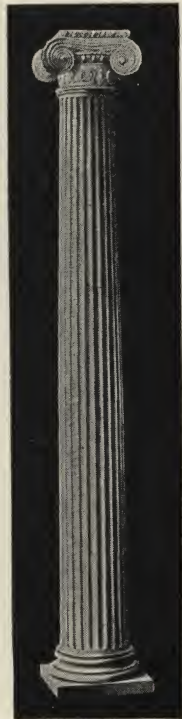
*1-ply steel shaft; diameter: base, 8 in.; top, 6 1/2 in.; height 6 ft.
 †2-ply steel shaft; diameter: base, 21 in.; top, 19 in.; height, 10 ft.



CONSTRUCTION DETAILS OF UNION METAL COLUMNS



Design 212
 Roman
 Corinthian



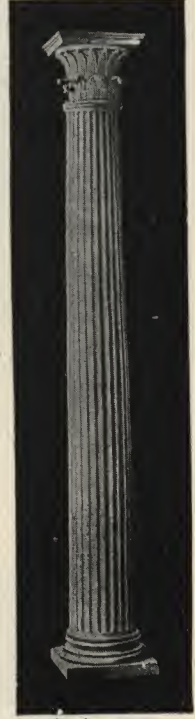
Design 230
 Greek
 Ionic



Design 237
 Modern
 Ionic



Design 222
 Italian
 Ionic
 (Scamozzi)



Design 213
 Temple of the
 Winds



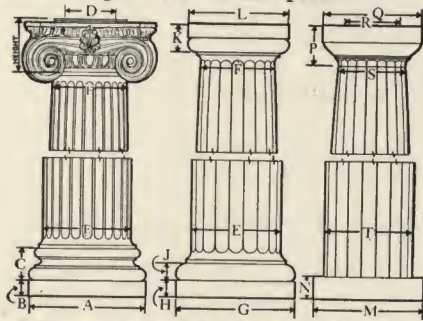
For further details and
 literature, write to:

THE UNION METAL MANUFACTURING CO., Canton, Ohio

Union Metal Columns—(Continued)

Architects' Specification

The fluted columns used shall be Union Metal Pressed Steel Columns with entasis and stopped flutes, manufactured by THE UNION METAL MANUFACTURING CO., Canton, Ohio. The design number, style and size of columns to be used are indicated on drawings. The manufacturer shall apply a priming coat of high grade metallastic paint to all columns before shipment from his plant.



Designs 212, 230, 237, 222, 213, 219 and 224
Designs 240 and 246
Design 700

DIMENSION CHART OF UNION METAL COLUMNS

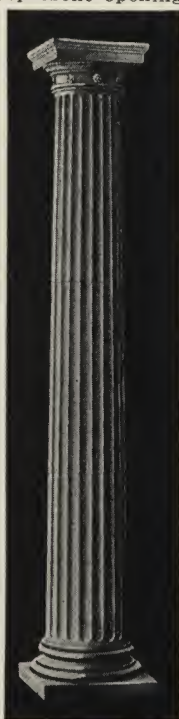
DIMENSION CHART FOR UNION METAL COLUMNS

| Bott Dia. Shaft | DESIGNS No. 212, 230, 237, 222, 213, 219 and 224 | | | | | | | | | | | | | | DESIGN No. 240 | | | | | DESIGN No. 246 | | | | | | DESIGN No. 700 | | | | | | | | | | | | | |
|-----------------|--|-------|--------|--------|--------|--------|-------------------|--------|--------|--------|--------|--------|--------|--------|----------------|-------|--------|--------|--------|----------------|-------|-------|--------|-------|--------|----------------|-------|-------|-------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|
| | A | B | C | D | E | F | HEIGHT OF CAPITAL | | | | | | | | G | H | J | K | L | G | H | J | K | L | R | M | N | P | Q | R | S | T | | | | | | | |
| | | | | | | | 212 | 230 | 237 | 222 | 213 | 219 | 224 | 212 | | | | | | | | | | | | | | | | | | | 230 | 237 | 222 | 213 | 219 | 224 | |
| 8 | 10 1/2 | 1 1/4 | 3 | 5 1/2 | 8 | 6 1/2 | 9 3/4 | 6 1/2 | 4 1/2 | 4 1/2 | 8 1/2 | 11 1/2 | 4 1/2 | 11 | 1 1/4 | 1 1/4 | 4 1/2 | 9 3/4 | 5 | 10 1/2 | 1 1/4 | 3 | 5 1/2 | 8 | 6 1/2 | 9 3/4 | 6 1/2 | 4 1/2 | 4 1/2 | 8 1/2 | 11 1/2 | 4 1/2 | 11 | 1 1/4 | 1 1/4 | 4 1/2 | 9 3/4 | 5 | |
| 10 | 13 1/4 | 1 1/4 | 3 1/2 | 6 1/2 | 9 3/4 | 8 | 13 1/4 | 9 3/4 | 6 1/2 | 5 1/2 | 12 1/2 | 13 1/4 | 6 1/2 | 13 1/4 | 1 1/4 | 1 1/4 | 5 1/2 | 12 1/2 | 6 1/2 | 13 1/4 | 1 1/4 | 3 1/2 | 6 1/2 | 9 3/4 | 8 | 13 1/4 | 9 3/4 | 6 1/2 | 4 1/2 | 4 1/2 | 12 1/2 | 13 1/4 | 6 1/2 | 13 1/4 | 1 1/4 | 1 1/4 | 5 1/2 | 12 1/2 | 6 1/2 |
| 12 | 16 | 1 1/4 | 4 | 7 1/2 | 12 | 10 | 15 1/2 | 11 1/2 | 6 1/2 | 5 1/2 | 15 1/2 | 15 1/2 | 7 1/2 | 16 | 2 1/4 | 2 1/4 | 6 1/2 | 15 1/2 | 7 1/2 | 16 | 2 1/4 | 4 1/2 | 7 1/2 | 10 | 15 1/2 | 11 1/2 | 6 1/2 | 4 1/2 | 4 1/2 | 15 1/2 | 15 1/2 | 7 1/2 | 16 | 2 1/4 | 2 1/4 | 6 1/2 | 15 1/2 | 7 1/2 | |
| 14 | 18 1/2 | 2 1/4 | 4 1/2 | 9 3/4 | 14 | 12 | 16 3/4 | 13 1/4 | 7 1/2 | 6 1/2 | 16 3/4 | 19 1/2 | 8 1/2 | 18 1/2 | 3 1/4 | 3 1/4 | 7 1/2 | 16 3/4 | 8 1/2 | 18 1/2 | 3 1/4 | 5 1/2 | 9 3/4 | 12 | 18 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 18 1/2 | 13 1/4 | 7 1/2 | 18 1/2 | 3 1/4 | 3 1/4 | 7 1/2 | 16 3/4 | 8 1/2 | |
| 16 | 20 3/4 | 2 1/4 | 5 1/2 | 10 1/2 | 15 1/2 | 14 | 18 1/2 | 13 1/4 | 7 1/2 | 6 1/2 | 18 1/2 | 21 1/2 | 9 1/2 | 20 3/4 | 3 1/4 | 3 1/4 | 8 1/2 | 18 1/2 | 9 1/2 | 20 3/4 | 3 1/4 | 6 1/2 | 10 1/2 | 14 | 20 3/4 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 20 3/4 | 13 1/4 | 7 1/2 | 20 3/4 | 3 1/4 | 3 1/4 | 8 1/2 | 18 1/2 | 9 1/2 | |
| 18 | 22 1/4 | 2 1/4 | 5 1/2 | 10 1/2 | 15 1/2 | 14 | 18 1/2 | 13 1/4 | 7 1/2 | 6 1/2 | 18 1/2 | 21 1/2 | 9 1/2 | 22 1/4 | 3 1/4 | 3 1/4 | 8 1/2 | 18 1/2 | 9 1/2 | 22 1/4 | 3 1/4 | 6 1/2 | 10 1/2 | 14 | 22 1/4 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 22 1/4 | 13 1/4 | 7 1/2 | 22 1/4 | 3 1/4 | 3 1/4 | 8 1/2 | 18 1/2 | 9 1/2 | |
| 20 | 25 1/2 | 3 1/4 | 6 1/2 | 12 1/2 | 17 1/2 | 15 1/2 | 21 1/2 | 17 1/2 | 8 1/2 | 7 1/2 | 21 1/2 | 24 1/2 | 10 1/2 | 25 1/2 | 3 1/4 | 3 1/4 | 9 1/2 | 21 1/2 | 10 1/2 | 25 1/2 | 3 1/4 | 6 1/2 | 10 1/2 | 14 | 25 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 25 1/2 | 13 1/4 | 7 1/2 | 25 1/2 | 3 1/4 | 3 1/4 | 9 1/2 | 21 1/2 | 10 1/2 | |
| 20 | 25 1/2 | 3 1/4 | 6 1/2 | 12 1/2 | 17 1/2 | 15 1/2 | 21 1/2 | 17 1/2 | 8 1/2 | 7 1/2 | 21 1/2 | 24 1/2 | 10 1/2 | 25 1/2 | 3 1/4 | 3 1/4 | 9 1/2 | 21 1/2 | 10 1/2 | 25 1/2 | 3 1/4 | 6 1/2 | 10 1/2 | 14 | 25 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 25 1/2 | 13 1/4 | 7 1/2 | 25 1/2 | 3 1/4 | 3 1/4 | 9 1/2 | 21 1/2 | 10 1/2 | |
| 22 | 28 3/4 | 3 1/4 | 5 1/2 | 14 | 22 | 17 1/2 | 26 1/2 | 17 1/2 | 12 1/2 | 9 1/2 | 23 1/2 | 27 1/2 | 13 1/2 | 28 3/4 | 3 1/4 | 3 1/4 | 10 1/2 | 23 1/2 | 13 1/2 | 28 3/4 | 3 1/4 | 6 1/2 | 10 1/2 | 14 | 28 3/4 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 28 3/4 | 13 1/4 | 7 1/2 | 28 3/4 | 3 1/4 | 3 1/4 | 10 1/2 | 23 1/2 | 13 1/2 | |
| 24 | 32 | 4 | 6 1/2 | 15 1/2 | 23 1/2 | 19 1/2 | 29 1/2 | 20 1/2 | 12 1/2 | 10 1/2 | 26 1/2 | 31 1/2 | 15 1/2 | 32 | 4 | 4 | 11 1/2 | 26 1/2 | 15 1/2 | 32 | 4 | 6 1/2 | 10 1/2 | 14 | 32 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 32 | 13 1/4 | 7 1/2 | 32 | 4 | 4 | 11 1/2 | 26 1/2 | 15 1/2 | |
| 26 | 34 1/2 | 4 1/2 | 7 1/2 | 17 1/2 | 25 1/2 | 19 1/2 | 29 1/2 | 20 1/2 | 12 1/2 | 10 1/2 | 26 1/2 | 31 1/2 | 15 1/2 | 34 1/2 | 4 1/2 | 4 1/2 | 12 1/2 | 26 1/2 | 15 1/2 | 34 1/2 | 4 1/2 | 6 1/2 | 10 1/2 | 14 | 34 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 34 1/2 | 13 1/4 | 7 1/2 | 34 1/2 | 4 1/2 | 4 1/2 | 12 1/2 | 26 1/2 | 15 1/2 | |
| 28 | 37 | 5 1/2 | 8 1/2 | 17 1/2 | 25 1/2 | 22 | 32 1/2 | 21 1/2 | 12 1/2 | 12 1/2 | 28 1/2 | 34 1/2 | 16 1/2 | 37 | 5 1/2 | 5 1/2 | 13 1/2 | 28 1/2 | 16 1/2 | 37 | 5 1/2 | 6 1/2 | 10 1/2 | 14 | 37 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 37 | 13 1/4 | 7 1/2 | 37 | 5 1/2 | 5 1/2 | 13 1/2 | 28 1/2 | 16 1/2 | |
| 30 | 39 | 5 1/2 | 8 1/2 | 18 1/2 | 29 1/2 | 23 1/2 | 35 1/2 | 23 1/2 | 12 1/2 | 13 1/2 | 31 1/2 | 36 1/2 | 17 1/2 | 39 | 5 1/2 | 5 1/2 | 14 1/2 | 31 1/2 | 17 1/2 | 39 | 5 1/2 | 6 1/2 | 10 1/2 | 14 | 39 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 39 | 13 1/4 | 7 1/2 | 39 | 5 1/2 | 5 1/2 | 14 1/2 | 31 1/2 | 17 1/2 | |
| 32 | 41 1/2 | 6 | 10 1/2 | 20 1/2 | 31 1/2 | 25 | 39 1/2 | 24 1/2 | 13 1/2 | 14 1/2 | 33 1/2 | 38 1/2 | 18 1/2 | 41 1/2 | 6 | 6 | 15 1/2 | 33 1/2 | 18 1/2 | 41 1/2 | 6 | 6 1/2 | 10 1/2 | 14 | 41 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 41 1/2 | 13 1/4 | 7 1/2 | 41 1/2 | 6 | 6 | 15 1/2 | 33 1/2 | 18 1/2 | |
| 34 | 43 | 6 1/2 | 11 1/2 | 22 | 34 | 26 1/2 | 42 1/2 | 26 1/2 | 15 | 15 | 40 | 42 1/2 | 19 1/2 | 43 | 6 1/2 | 6 1/2 | 16 1/2 | 40 | 19 1/2 | 43 | 6 1/2 | 6 1/2 | 10 1/2 | 14 | 43 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 43 | 13 1/4 | 7 1/2 | 43 | 6 1/2 | 6 1/2 | 16 1/2 | 40 | 19 1/2 | |
| 36 | 45 1/2 | 6 1/2 | 11 1/2 | 23 1/2 | 36 | 29 1/2 | 42 1/2 | 28 1/2 | 18 1/2 | 18 1/2 | 43 1/2 | 42 1/2 | 21 1/2 | 45 1/2 | 6 1/2 | 6 1/2 | 16 1/2 | 43 1/2 | 21 1/2 | 45 1/2 | 6 1/2 | 6 1/2 | 10 1/2 | 14 | 45 1/2 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 45 1/2 | 13 1/4 | 7 1/2 | 45 1/2 | 6 1/2 | 6 1/2 | 16 1/2 | 43 1/2 | 21 1/2 | |
| 42 | 56 | 7 | 14 | 27 | 42 | 34 | 52 1/2 | 34 | 19 1/2 | 19 1/2 | 47 1/2 | 52 1/2 | 21 1/2 | 56 | 7 | 7 | 19 1/2 | 47 1/2 | 21 1/2 | 56 | 7 | 7 | 10 1/2 | 14 | 56 | 13 1/4 | 7 1/2 | 4 1/2 | 4 1/2 | 56 | 13 1/4 | 7 1/2 | 56 | 7 | 7 | 19 1/2 | 47 1/2 | 21 1/2 | |

All stock designs (except Design 240) are made in all sizes from 8 to 42-in. diam., and from 5 to 35 ft. high. Design 240 is made in 8 to 14-in. diam. only. Columns with diameter greater than 42 in. and higher than 35 ft. are specially constructed.
*D and R dimensions represent opening through capital.



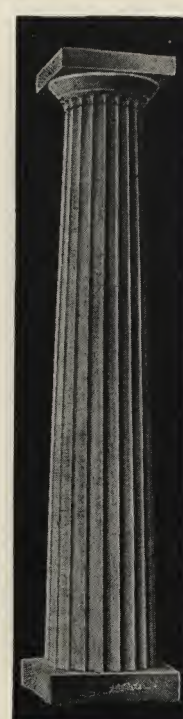
Design 219
Italian
Composite



Design 224
Roman Doric
Diocletian



Design 246
True
Roman Doric



Design 700
Greek
Doric



Design 240
Modern-steel
Doric



For further details and literature, write to:

THE UNION METAL MANUFACTURING CO., Canton, Ohio

Napanee Kitchen Cabinets and Pantry Equipment

Made by

COPPES BROS. & ZOOK

Nappanee, Ind.

REPRESENTATIVES IN ALL PRINCIPAL CITIES

Products

A complete, scientifically designed line of KITCHEN EQUIPMENT, including Kitchen Cabinets, Butler Cabinets, Refrigerator Cabinets, Refrigerators, Top Cupboards, Broom Closets, Dish Cupboards, Divider Cupboards and Ranges.

May be assembled in various combinations to fit space available. Adaptable to multiple or single dwellings.

Facilities and Service

Factory at Nappanee, Ind., equipped to build and finish all parts of line. All lumber cut in our own mills, dried in our own kilns. Organized to operate on strict schedules of production. Large warehouse stocks carried to facilitate quick shipments.

Maintain an Architectural Department to assist architects and builders in planning the most advantageous equipment for any need. Blue prints of standard units gladly furnished. Authorized Napanee representatives, equipped to render service in kitchen design, located in all principal cities.

Experience

Manufacturers of kitchen cabinet units, exclusively, for 16 years, with a background of manufacturing integrity of 51 years' standing. Engaged in making strictly the highest quality merchandise.



Model 716D
(716 with Dinet)

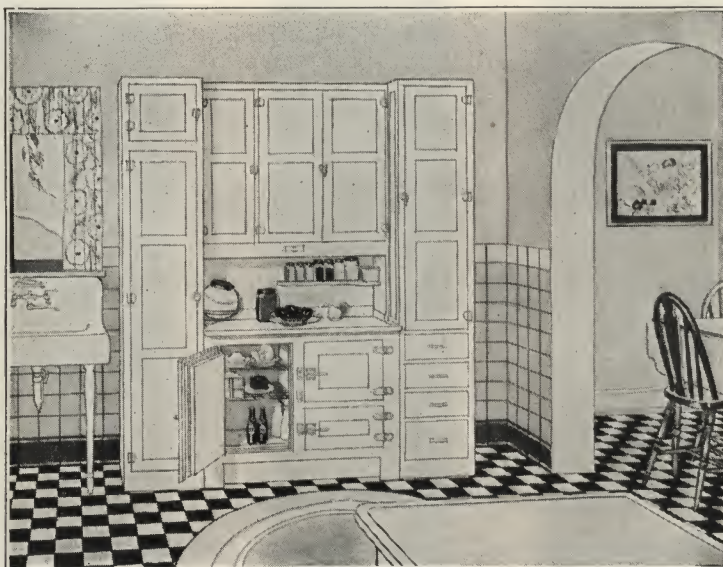
Tests and Conveniences

A series of tests conducted by Harrington Emerson, world famed efficiency expert, show in brief that the Napanee Dutch Kitchenet saves 1592 steps of the 2113 ordinarily necessary to prepare three simple meals. A full report of these tests gladly sent for the asking, to convince any one of the positive success of Napanee units in organizing kitchen work and lightening kitchen labor.

Cabinet Equipment

Depending on the size, design and type of cabinet, the following equipment is furnished in whole or in part. These conveniences are not obtainable in mill cabinet work.

- (1) Complete set of crystal spice jars, including tea and coffee jar; shelf to fit.
- (2) Roll sugar bowl, "faces" any way the user wants it. Handy scoop.
- (3) Bread board of linden wood, odorless, tasteless, everlasting.
- (4) Hooks for paid and unpaid bills.
- (5) Sliding wire shelf in base compartment for light utensils.
- (6) Sliding wood tray in base, makes utensils easy to get out.
- (7) Wire racks on base compartment doors.
- (8) Cookbook holder, keeps cookbook opened flat to recipe.
- (9) Convenient rack for holding extracts.
- (10) Easy-fill flour bin with high grade sifter.



Models 741-728-740

An approved combination including Models 741, 728, 740. Over-all width 73½ in.; height 85½ in.; depth of cabinet base 21 in.; depth of porcelain top 25¼ in.; depth of cabinet top 12 in.; depth of broom closet and dish cupboard 21 in.; width of cabinet 40½ in. Ice capacity 85 lb.



For further details and literature, write to:

COPPES BROS. & ZOOK, Nappanee, Ind.

NAPANEE KITCHEN CABINETS (Cont.)

General Information

(A) **Heights**—All kitchen cabinets, refrigerator combinations, butler units and side units are available in two heights, namely: 71½ and 85½ in.

(B) **Widths**—Kitchen cabinets and refrigerator combinations are available in widths as follows: 48½, 40½, 36½, 30½ and 24½ in. Butler cabinets are available in 40½ and 30½-in. widths. Side units are available in following widths: 20 and 16½ in.

(C) **Depths**—Kitchen cabinets, butler cabinets and refrigerator combinations have base depths of 21 in., depth of cabinet tops 12 in. Depths of side units are 12 in. and 21 in.

(D) **Kitchen Cabinet Roll Curtains** — Each width and height of cabinet is furnished *with* and *without* roll curtains. Where roll curtains are furnished, the porcelain top always extends carrying with it the top drawer case immediately beneath. Where roll curtains are not furnished porcelain top is stationary from front edge to cabinet back.

(E) **Dinets (a Patented Exclusive Napanee Feature)**—The Dinet is a built-in breakfast table available in all 36½, 40½ and 48½-in roll curtain kitchen cabinets. It extends on heavy table slides. It is strong and rigid. The top is made of 5/8-in. hardwood lumber. When open it extends 24 in. beyond the edge of the porcelain top; when closed the porcelain top extends as in all roll curtain cabinets. In the larger models it provides ample space to seat four persons comfortably. In the smaller models it is exceedingly valuable as a breakfast table for small families, and for the added table space it offers at a time of preparation for large parties and dinners. (See illustration.)

Special Features

(1) **Finishes**—Triple coated enamel inside and out in snow white, dove gray, Orion green and Egyptian ivory. For those who finish interiors up to point of decorating only we supply these units with just the undercoat of enamel. We use only the highest grade finishing material.

(2) **All Hardwood Construction** — Only highest grade hardwood used, and used throughout. Sawed in our own mills, dried in our own kilns. Prevents warping or cracking with kitchen humidity.

(3) **One-piece Laminated Back** — Top and base both backed by a beautiful, tightly fitted one-piece veneer of 3-ply hardwood. Rail between top and base lets weight rest on legs and yokes, and keeps out mice and vermin.

(4) **Gained-in Shelf Construction**—All shelves are gained in and in addition are glued and nailed for strength, durability, rigidity.

(5) **Gained-in Corner Joints**—All corner joints are gained in, glued and nailed.

(6) **Base Reinforced Front and Rear**—Special corner blocks permanently reinforce all corner joints in Napanee bases.

(7) **Underbraced Buckleproof Porcelain Top** — Stout underbracing, exclusively Napanee, keeps porcelain tops taut and firm under any pressure.

(8) **Full Boxed-in Drawers**—A radical departure in kitchen cabinet construction and characteristic of the furniture construction found throughout Napanee units. Drawers can be pulled out or pushed in from either side without sticking.

(9) **Rustproof Hardware**—Heavily nickelplated over solid brass.

(10) **Full Canvas Back Curtain**—Full canvas back on roll curtain prevents all entry of dust and germs.

(11) **Edges of Sliding Surfaces Rounded and Paraffined**—Slide easily.

(12) **Rubber Bumpers**—Prevent jiggling of porcelain top when extended.

(13) **Steel Yokes 12 Inches Long**—Hold cupboard and base rigidly together.

(14) **Door Panels**—3-ply hardwood veneer.

(15) **Dust Curtain Beneath Porcelain Top**—Keeps dirt out of base compartment.

(16) **Refrigerators**—Guaranteed to maintain low temperature. Insulation of 1½-in. pure, unadulterated, virgin sheet cork. Food compartment lining, enameled finish. Ice chamber proper size to allow equipping with standard electrical units. Conforms to standards set by manufacturers of electrical units. Rear or side icing doors and gaskets on doors available on all models.

Catalogue and Prices

A 40-page, convenient, thoroughly illustrated catalogue of the Napanee line together with a dimension sheet giving specifications of all standard Napanee Units are available for the asking. Prices of equipment on request.



Models 741-717-740

An approved combination including Models 741, 717, 740. Over-all width 81½ in.; height 85½ in.; depth of cabinet base 21 in.; depth of porcelain top 25¼ in.; depth of cabinet top 12 in.; depth of broom closet and dish cupboard 21 in.; width of cabinet 48½ in.



Models 741-712-729-731-740

An approved combination including Models 741, 712, 729, 731, 740. Over-all width 97½ in.; height 85½ in.; depth of cabinet base 21 in.; depth of porcelain top 25¼ in.; depth of cabinet top 12 in.; width of cabinet 40½ in.; depth of refrigerator 21 in.; depth of broom closet and dish cupboard 21 in.; width of refrigerator and top cupboard 24 in. Ice capacity 85 lb.



For further details and literature, write to:

COPPES BROS. & ZOOK, Napanee, Ind.

FAIN FOLD-AWAY DINING SETS

Manufactured by
FAIN MANUFACTURING COMPANY
 626-630 West 23rd Street, Norfolk, Virginia
 New York Sales and Show Room—19 West 44th Street, Room 601
 Chicago Sales and Show Room: 180 North Michigan Avenue, Room 612
 Agents in All Principal Cities

Products

Fain Fold-Away Dining Sets for use in the kitchens, dining alcoves and living rooms of houses and apartments.

In the Kitchen

Experienced builders know that in renting apartments or buying homes, women look to the kitchen first.

Its convenience for serving hurried meals—breakfasts, light lunches, informal suppers—is of especial interest.

To build a "dining alcove" or "breakfast nook" for such meals requires the addition of at least 480 cubic feet of space, or more, at a cost sometimes as high as \$500. It is doubtful if the room will command the additional rental or selling price to pay for it.

Now, builders can meet this demand for dining convenience with the Fain Fold-Away Dining Set Model K, shown on this page. No dining alcove or additional space is needed at all! The installation diagram on the next page shows exactly how much space is required to build the unit in or to provide for it if the cabinet type is used instead of the recessed.

Here is the most practical provision for eating in the kitchen that has ever been devised. It makes kitchen meals both pleasant and convenient. With the table and seats painted or finished in attractive colors, the Fain Model K becomes a beautiful item of furniture and one of immediate appeal to the owner or tenant.

The meal over, both table and seats are *folded away* into the cabinet (see photograph in oval). No chairs remain to occupy kitchen floor space or to be carried back into the dining room, and there are no legs in the way to make cleaning the floor difficult.

When a kitchen table is needed, the table—which has a porcelain top—is immediately available, and the housewife can sit on one of the comfortable seats as she works at preparing meals.

Everywhere Fain Fold-Away Model K is being eagerly used by successful builders as the one selling feature that they can put into their houses and apartments without adding to the cost of building.

Here is that "something different" that builders, owners and tenants alike are looking for!



Fain Fold-Away Dining Set Model K folds into a built-in cabinet. The inside end of the table goes up first, so that crumbs, water, etc., inadvertently left on the top do not run into the cabinet. Yet the table cannot be accidentally folded up; neither can the seats. See installation diagram on next page.



The table top is of porcelain enamel on a steel base and makes an ideal work table. The kitchen worker can sit, if she chooses, on one of the fold-away seats. A patented construction relieves the doors of any weight on the seats, which stand entirely on their own legs.



There is ample room for four adults to sit and dine in comfort. The table is 25 in. by 41½ in. in size. When the set is closed, a wall space 32 in. by 55¼ in. is occupied; when open, it requires a floor space 54 in. wide by 40 in. long.



When not needed as either a dining or work table, the Fain Fold-Away set is concealed in its cabinet by attractively paneled doors. No chairs and table remain to clutter the kitchen or to be carried back to the dining room. The floor space is unencumbered and is easily swept.



For further details and literature, write to:

FAIN MANUFACTURING COMPANY

626-630 West 23rd St.
 NORFOLK, VIRGINIA

FAIN FOLD-AWAY DINING SETS—(Continued)



These three pictures show three different phases of the Fain Fold-Away Dining Set Model F, when installed in the dining alcove. On the left you see how comfortably the table and seats accommodate four adults when dining. The table top is 29 in. by 47 in. The set occupies a space 62 in. wide by 44½ in. long, when open. . . In the center picture, the set is being folded into its built-in cabinet. Due to the patented construction, these seats and table cannot collapse or accidentally fold up. Nor is there any weight on the doors. In the photograph on the right, the set is folded away behind the beautiful French doors, and the dining alcove is left free for use as a playroom, den or sewing room. No dining furniture remains to make sweeping the room difficult. Here indeed is a multi-purpose room—and it costs no more than any dining alcove!

Here is the Fain Fold-Away Dining Set Model F as used in the combination living-dining room. It avoids the use of the inconvenient gate-leg table or of living room chairs for dining purposes.

The Dining Alcove Becomes a Multi-Purpose Room

The Fain Fold-Away Dining Set Model F, illustrated above, multiplies the usefulness and value of the dining alcove many times.

When not in use for dining, the table and seats are folded away behind beautiful French doors. No dining furniture remains to occupy usable floor space. The room is absolutely clear for other uses. And there are no chair and table legs in the way of sweeping.

The dining furniture out of the way, the room can be used as a playroom for the children. No toys need ever litter the living room floor. The toddler plays in a safe place where he cannot get into trouble, pull the contents of tables over on himself or fall out of open windows.

At night, the room can be used as a den for father. He can sit and read or smoke or listen to the radio while others use the living room. In the efficiency apartment, one member of the family can retire in entire privacy independently of the other, if the latter occupies the dining alcove-den.

Or this multi-purpose room can be used as a sewing room by the woman who likes to sew. On ironing days, she can iron here, amid pleasant, cool surroundings, far away from the heat of the kitchen range.

Yet all these advantages are not gained at the expense of dining convenience. When a dining table is needed, a good big one is immediately at hand with comfortable seats that will readily accommodate four adults (see photograph on extreme left above). A fifth person can be seated at the end of the table if necessary.

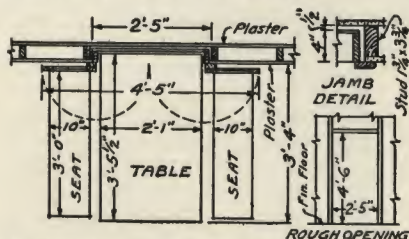
In the Living-Dining Room

In small houses and apartments without dining rooms or dining alcoves, Model F is the happiest possible solution of where and how to dine.

With this fold-away furniture there is no fussing with gate-leg tables; no removing of table ornaments that have to be replaced after the meal; no uneasy sitting in living room chairs that were never meant to sit in at a table. There is no scraping of chairs on polished floors or musing and bunching of rugs beneath the feet, as there is when living room tables and chairs are used for dining purposes.

Four years ago this new-type built-in furniture was an innovation. Today it has an important place in some of the finest apartment houses and homes in New York, Chicago and other large American cities. Yet its price makes it extremely practical for the workman's cottage or flat!

Installation Directions for Model K (See Illustrations on Opposite Page)

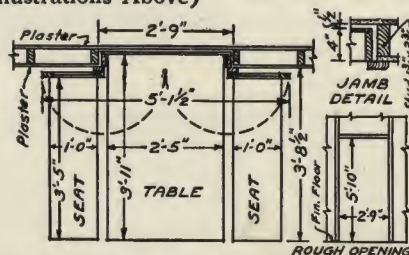


Model K requires a rough opening 54 in. from finished floor to under side of header, and 29 in. in clear between studs. If 3¼ in. studs are used, there will be ½ in. space in rear of cabinet. A ½ in. furring strip can be nailed in a vertical position to the laths in rear of cabinet. Then when cabinet is set in place a flat head screw can be screwed through back of cabinet into furring strip, thereby stiffening plastered wall in rear.

The unit—including the table, with porcelain top, size 25 in. by 41½ in.; two seats; wall cabinet and paneled doors—is shipped complete and assembled, including doors and casings. All hardware (of polished nickel) installed. One coat of transparent filler is applied at the factory.

When the set is closed a wall space 32 in. by 55¼ in. is required; when open, it occupies a floor space 54 in. wide by 40 in. deep.

Installation Directions for Model F (See Illustrations Above)



Model F is made to fit in a 4 in. stud partition. If 3¼ in. studs are used, there will be a ½ in. space left in rear of cabinet. After laths are nailed across rear of opening, a ½ in. furring strip should be nailed vertically in the center—this will strengthen rear plaster wall.

The table and seats are of basswood; jambs, casings and doors No. 1 White Pine. The unit—including table, which is 29 in. by 47 in.; two seats, wall cabinet with three-ply, non-warping back, and French doors (unglazed)—is shipped complete and assembled, including doors and casings, all hardware installed. The interior hardware is of polished nickel, the hinges and lock of dull brass. One coat of transparent filler is applied at the factory.

When the set is closed, the doors are 30 in. by 68 in.; when open, it requires a floor space 62 in. wide by 44½ in. deep.



For further details and literature, write to:

FAIN MANUFACTURING COMPANY

626-630 West 23rd St.
NORFOLK, VIRGINIA

HOOSIER SECTIONAL KITCHEN EQUIPMENT

Manufactured by
THE HOOSIER MANUFACTURING COMPANY

New Castle, Indiana

Chicago Office and Show Room
H.M.C. Sales Corporation
206 Keehn Bldg.,
308 Michigan Ave., North

New York Office and Show Room
H.M.C. Sales Corporation
1130 Architects Bldg.,
101 Park Ave.

Product

Hoosier Sectional Kitchen Equipment.

Experience

After more than a quarter of a century spent in the study of kitchens and kitchen problems, Hoosier has developed a new and complete line of Sectional Kitchen Equipment designed to satisfy the needs of all types of homes and apartments.

Women demand scientifically designed and equipped kitchens—kitchens in which drudgery is reduced to a minimum; kitchens which eliminate unnecessary walking back and forth, which save both time and energy and which are as attractively furnished as other rooms of the house.

Hoosier Sectional Kitchen Equipment is manufactured by one of the world's largest factories devoted exclusively to kitchen equipment. The name "Hoosier" backed by more than twenty-five years of National advertising, is a guarantee of quality, an asset to any builder who features "Hoosier Equipped Kitchens."

Free Kitchen Plan Service

Hoosier's kitchen plan service, headed by experts who have spent years in the study of kitchen problems, is available to all. Let us help plan the kitchens you build or remodel.

Construction

Only the highest grade materials are used. A careful inspection of the line shows a quality of machine work, shop assembling and finish only possible in a product of an up-to-date factory employing skilled mechanics with years of special training.

All panels, backs and drawer bottoms are three ply, built under close inspection in our own factory. All door rails and stiles are built of heavy rock maple to prevent warping. All front frame joints of upper section are made doubly rigid by heavy metal tee and angle plates. Sliding shelves of base cupboards are three-ply panels, carefully fitted into rigid frames. All drawers are of special lock construction. All Hoosier Sections are fastened together by special nickel-plated bolts with wing nuts.

Finish

All sections are beautifully finished in high grade lacquer, offering a choice of White, Gray or Wedgwood Green. Upper cupboard doors may be had with two-tone decoration of contrasting colors, and backs of upper cupboards may be finished in same color as the door decoration without addi-



tional charge. The metal-like surface is due not only to the high-grade lacquer finish, but also to the expert glazing and sanding of the undercoats before lacquer is applied.

All drawers are nicely finished inside to insure easy cleaning.

Hardware

Crystal glass knobs with patented metal ferrules are used on all drawers. Doors are equipped with specially designed, nickel-plated brass hinges and easy operating nickel-plated brass catches.

Equipment

Upper sections may be had with or without special equipment consisting of removable metal flour bin with patented shaker sifter, two-way removable metal sugar bin, revolving spice caster with fluted glass jars equipped with aluminum screw caps.

Porcelain Equipment

All table tops, splash backs, bread and cake drawers and broom unit bottom pans are made of porcelain. Table tops and splash backs are available in any desired length up to 10 feet and may be had with cutouts for two standard size flat rim sinks.

Shop Assembled

Each combination is set up and carefully fitted at the factory before being finished and shipped. This saves delay and annoyance on the job, and is complete assurance that every outfit will go together as planned—all sections fitting together as perfectly as though built in one solid piece.

Refrigerators

Hoosier Refrigerators are available in four sizes. Every box is built under our own rigid specifications. The up-fitting and finishing is done in the Hoosier factory

$\frac{3}{4}$ -inch of lumber outside and $\frac{3}{8}$ -inch inside, together with $1\frac{1}{2}$ -inch nonpareil corkboard sheets—each sheet wrapped and sealed in two-ply water-proof paper, insures perfect satisfaction whether the box be used for ice or electric refrigeration.

The interior of the box proper is heavily coated with waterproof paint. The interior is lined with enameled iron. As an extra guarantee of quality $2\frac{1}{2}$ -inch nonpareil corkboard insulation, wrapped and sealed in two-ply paper, is used in the bottom of all boxes.



For further details and literature, write to:

THE HOOSIER MANUFACTURING COMPANY

128 Hudson St.
NEW CASTLE, IND.

HOOSIER SECTIONAL KITCHEN EQUIPMENT

Manufactured by

THE HOOSIER MANUFACTURING COMPANY

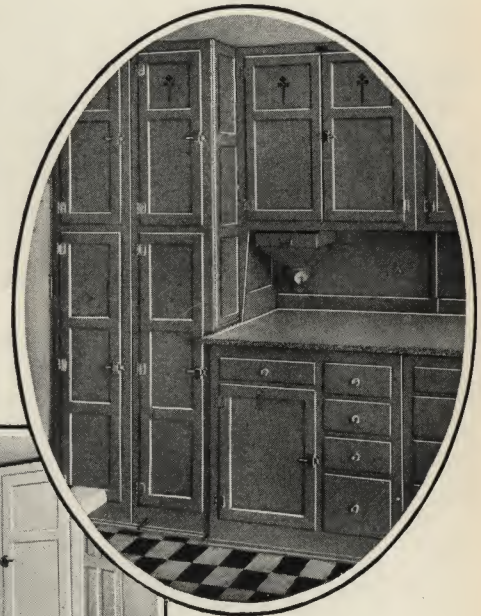


Two Hoosier Units in smart design. One a cabinet completely equipped. The other a combination of storage space and refrigerator. Both built conveniently near the sink.



A very efficient combination of cabinet work section, storage unit and stove. An ideal combination for a small kitchen.

This combination includes all the conveniences of a Hoosier Kitchen Cabinet—a real working center plus additional cupboards, broom and shelf units and handy linen storage.



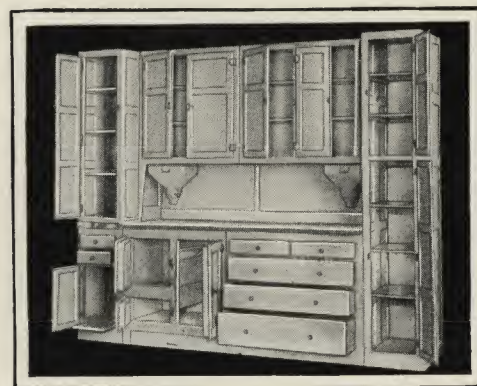
Completely equipped cabinet, refrigerator, closet space and broom storage in a compact combination. Beautifully finished in Grey, Wedgwood Green or White.



Attractive and amazingly efficient. This Hoosier setup concentrates the work by locating cabinet unit, combined with refrigerator, refrigerator cupboard and broom unit, conveniently near the stove and sink.



Generous work space — drawers, cupboards, shelves are provided here for the moderately large kitchen. Roomy enough for the requirements of a large family—but still a working center.



For further details and literature, write to:

THE HOOSIER MANUFACTURING COMPANY

128 Hudson St.
NEW CASTLE, IND.

McDougall Domestic Science Kitchen Units

Manufactured by

DOMESTIC SCIENCE DIVISION
McDougall Company, Frankfort, Indiana

A Good Kitchen Is a Valuable Asset for Any Home

Housewives are very quick to appreciate a kitchen which is efficient and attractive. Whether the home is to be retained, rented, or offered for sale, it will be the more valuable if it has within a kitchen which is modern both as to design and equipment.

Planning of Kitchens

Modern kitchens are planned before actual building is started. Every item of equipment which goes to make up the kitchen should be considered and sufficient space provided. McDougall Company is in position to render a really intelligent and valuable service in helping you to get the right kind of a kitchen.

What Are Domestic Science Kitchen Units?

Domestic Science Equipment is a series of units each designed for a certain definite purpose, which may be combined in an almost limitless number of combinations, giving efficient, attractive, and complete kitchens. Included in this equipment is everything

which could be desired for the kitchen, excepting only the stove and sink.

Our Service to Architects, Builders and Owners

McDougall Company is in a position to render a practical and helpful service by assisting in the preparation of kitchen layouts. The pleasing and practical arrangement of the kitchen shown at the bottom of this page is a product of the Technical Department which renders this service.

This department is composed of men especially trained in the art of kitchen layout. They will gladly make suggestions and recommendations as to the amount and arrangement not only of McDougall products but for the kitchen layout in general.

Our Technical Department serves as a clearing house and testing laboratory for the newest and most practical ideas of kitchen design.

This service is absolutely free and gladly given. Simply forward to this department a set of your floor plans or a sketch with complete dimensions. They will promptly submit their ideas and suggestions with complete specifications, prices, etc.



For further details and literature, write to:

DOMESTIC SCIENCE DIVISION, McDougall Co., Frankfort, Ind.

McDougall Domestic Science Kitchen Units—(Cont.)

Not all kitchens are alike. They may be the same size and shape but what determines the contents of a really good kitchen is not so much its size or shape but rather the use to which the room is to be put. There are certain fundamental principles for good kitchen layout and arrangement. It is the proper application of these fundamentals in an intelligent manner that makes good kitchens.

McDougall Domestic Science Kitchen Units are the latest and newest development in good kitchen equipment. This line is offered as the result of 37 years' practical experience in manufacturing and selling quality kitchen furniture. The knowledge obtained through these years has been correlated and expanded with the result that it is now possible for everyone to obtain, not only quality equipment, but also intelligent advice as to what should be in a modern kitchen.

Feature Points of Construction

These units are made of wood, carefully selected, thoroughly air seasoned, and scientifically kiln dried. The assembly of these units is done by experienced cabinet makers.

Every joint in any of our units is a mortise and tenon joint, carefully glued and made an integral part of the case which contains it. All shelves are mortised in.

Every base is thoroughly braced with the famous Sampson Corner Brace construction. There are eight of these corner braces in each base.

Our finish consists of three coats; two coats of undercoat and one coat of heavy special enamel. Each coat is sprayed on, sanded, and glazed before the subsequent coat is applied.

All hardware is heavily nickel plated on solid brass.

All table tops are of porcelain, guaranteed against chipping, cracking, or staining from the ordinary acids which come in contact with it in the kitchen.

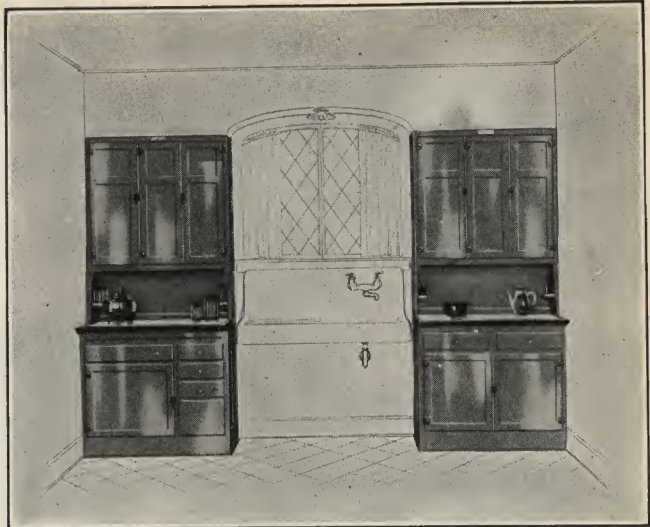
All drawer bottoms are mortised in all the way around and varnished on the inside. All drawers for silver are velvet lined.

All drawers have center guides and crystal glass knobs.

Refrigerators are of heavy corkboard insulation.

Each unit is inter-changeable with all other units. Additional equipment can be added whenever it becomes necessary.

We are woodworkers of thirty-seven years' experience and put only the best materials and workmanship into these Units.

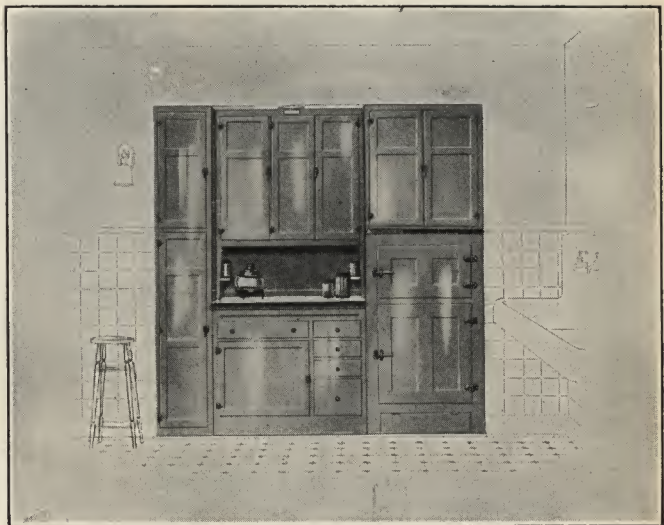


Unit 4560T

Unit 4260



Units 83-4560T-85



Units 83-4560T-10364



For further details and literature, write to:

Domestic Science Division, McDougall Co., Frankfort, Indiana

"Rocksteel" Kitchen and Bath Room Equipment

Manufactured by
ROCKFORD STEEL FURNITURE COMPANY

Rockford, Illinois

BRANCH OFFICES

CHICAGO—(Exhibition Booths) 1616 Builders' Bldg.

PACIFIC COAST—122 East 17th Street, LOS ANGELES, CALIF.

NEW YORK—(Exhibition Booths) 48 East 41st St.

Products

"Rocksteel" Sectional Unit Kitchen Cabinets;
"Rocksteel" Bath Room Cabinets; "Rocksteel"
Venetian Cabinets; "Rocksteel" Ironing Board Cab-
inets; "Rocksteel" Refrigerators.

Uses

"Rocksteel" products are adaptable to kitchens and bath rooms of any size in homes and apartments, whether new or old.

Construction

Individual design. Manufactured complete in our own plants of heavy gauge furniture steel, free from pits, seams and other surface imperfections, insuring finest of finish. Electrically welded, reinforced doors, with muffled contacts, assuring sound-proof construction. Fireproof, verminproof, odorproof, and sanitary in every detail. "Built to Endure."

Kitchen Units

Built in sections, in multiples of 6 in. of such engineering practice as to conform to any specification that would ordinarily apply to wood design in either mill construction or built-in features. Combinations arranged to fit any detail of doors and windows. Fitted closely and operate smoothly, giving maximum of storage space. Combinations include everything in straight line from steel refrigerator to stove, or detached as per individual plans. Easy and inexpensive to install. Finished in any color com-

bination desired, both exterior and interior in the finest grade lacquer sprayed on a prime coat baked for a long time under suitable temperatures; permanent in durability, thus obviating chipping and seams. Fitted with special rust resisting nickel hardware.



The Modernaid, a "Rocksteel" Sectional Unit Kitchen

Modernaid Specifications

A "Rocksteel" Sectional Unit Kitchen with gas range, steel refrigerator, porcelain work table, accessible drawers and cupboards, etc.

Unit C 3-20, steel wall cabinet. With side or rear package service if desired. Detail roughing-in specifications furnished on request.

Unit C 3-12, steel wall cabinet. Furnished with flour bin and extract bottle shelves on doors, if desired.

Unit D 3-12, steel upper wall cabinet.

Unit H 36, steel canopy hood for range. Carries off all heat and vapors from both stove top and oven.

Unit A 5/2-36, steel base. Bread box installed in large lower drawer if desired.

Unit R 36-52, steel refrigerator. 2-in. genuine cork insulation. Ice cake capacity, 120 lbs. Total cubical contents, 10.54 cu. ft. Icing door opening 24 1/2 in. high by 12 1/2 in. wide. Side or rear icing door furnished if desired. Roughing-in specifications furnished on request. If automatic refrigeration is to be used, specify name and type of unit.

RO 40-4, burner cabinet type range, with broiling oven. Furnished in black japan, or white or gray porcelain enamel finishes. Ovens are 14 in. wide and 18 in. deep inside. Broiler is 9 in. high and baking oven 12 in. Cooking top 17 by 22 in. Pilot lighter if desired.

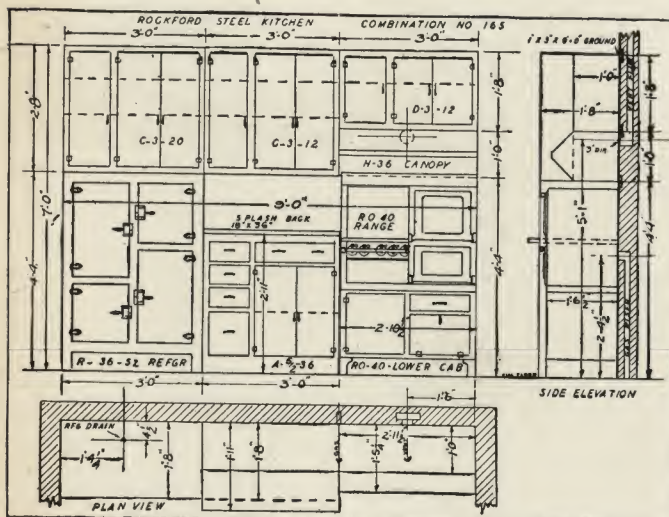
RO 40, steel lower range cabinet.

Porcelain enameled work top, 23x36 in. Wood work top furnished if desired.

Metal splash back, covering exposed wall above unit A 5/2-36.

The Modernaid can be furnished in white, French gray, ivory, apple green or special colors upon request. Hardware is brightly nickelplated and is rust resisting. Holes for assembly are drilled and bolts furnished.

Write for catalog of complete "Rocksteel" line showing many other types of installations with full details of each.



For further details and literature, write to:

ROCKFORD STEEL FURNITURE CO.

ROCKFORD,
ILLINOIS

HOME BUILDERS CATALOG

"Rocksteel" Kitchen and Bath Room Equipment

Manufactured by
ROCKFORD STEEL FURNITURE COMPANY
Rockford, Ill.



Model "S" Bath Room Cabinet

"Rocksteel" Cabinets add much to the beauty, convenience and cleanliness of any bath room, new or old. The white lacquer finish gives a trim appearance; or we furnish other colors which harmonize with any color scheme or tiling.

Specifications—Recessed type. Adjustable glass shelves.

Finish: white lacquer, or special colors upon request.

14x18-in. beveled mirror. Hinges interlocking, ball tipped.

Face dimensions: over-all height 24 3/4 in.; over-all width 20 1/2 in.; cabinet depth 4 1/2 in. Roughing-in dimensions: height 21 1/2 in.; width 17 1/2 in.; depth 4 in.

Model L: all dimensions identical, except mirror which is 12x16 in.

Shipping weight 40 lb.

Steel Cabinet Ironing Board

(Approved by Good Housekeeping Institute.)

Not only does the "Rocksteel" Cabinet Ironing Board provide convenient and easily accessible storage for a piece of kitchen equipment that formerly always was in the way, but it makes good use of otherwise unused space. The cabinet has a shelf at the top large



enough to hold an electric iron and cord, and a hook on the door on which to hang a broom. Thus four items can be compactly and handily stored in a minimum amount of space.

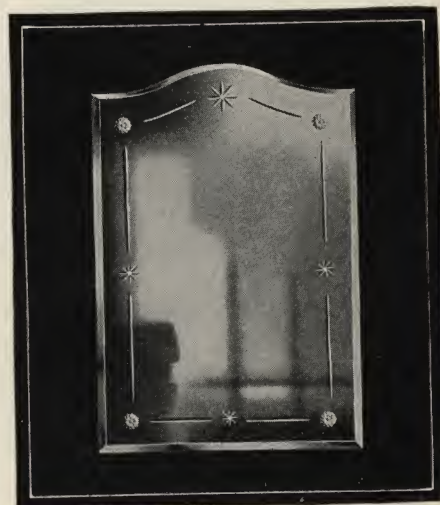
The "Rocksteel" Cabinet Ironing Board is packed ready to put in place. Furnished in baked, prime coat finish so that the cabinet can be made to match the woodwork or walls of the kitchen. Can be furnished in a high luster white or French gray if desired.

All the inconvenience of finding a place to store the ironing board, iron, cord and broom in an already overcrowded kitchen is eliminated by the installation of a "Rocksteel" Cabinet Ironing Board. The board folds compactly into an all-steel cabinet and is out of the way.



yet ready for instant use. The adjustment from right to left makes it possible to work on either side of the board, in the best light.

For installation in an old building, it is only necessary to cut out the lath and plaster between two studs whose centers are 16 in. apart. The opening in the wall should be started 15 in. from the floor and should measure 66 in. from the 15-in. mark to the top. The cabinet will slip into this opening and can be fastened in place with the six screws provided for this purpose. The beveled flange or trim around the cabinet door will cover the ragged edge of the opening.



Model "C" Venetian Bath Room Cabinet

The "Rocksteel" Venetian Bath Room Cabinets are so designed that the attractive Venetian type of mirror entirely conceals the cabinet itself. This adds materially to the beauty of an attractive bath room.

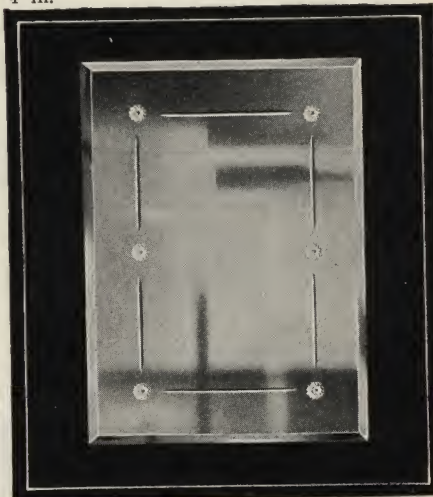
Specifications—Recessed type. Adjustable glass shelves.

Cabinets are finished in white lacquer.

Mirror 20 x 32 in. beveled edge.

Hidden Hinges.

Face dimensions: over-all height 32 in.; over-all width 20 in. Roughing-in dimensions: width 16 1/4 in.; height 26 in.; depth 4 in.



Model "C" Jr. Venetian Bath Room Cabinet

Mirror 16x24 in.
Roughing-in dimensions: width 12 1/4 in.; height 18 in.; depth 4 in.

"Clear Vision" Bath Room Cabinet

The "Rocksteel" Clear Vision Bath Room Cabinet is very similar to a Venetian type. It is equipped with a very fine grade etched beveled edge mirror. The mirror completely conceals the cabinet itself which is recessed into the wall.

Specifications—Recessed type. Adjustable glass shelves. Finished in white lacquer.

20 x 30 inches etched beveled mirror.
Face dimensions: over-all height 30 in.; over-all width 20 in. Roughing-in specifications: height 26 in.; width 16 1/4 in.; depth 4 in.

"Clear Vision, Jr." Bath Room Cabinet

Mirror 16 x 22 in. beveled.
Face dimensions: over-all 16 x 22 in. Roughing-in dimensions: height 18 in.; width 12 1/4 in.; depth 4 in.



Model "T" Bath Room Cabinet

Ample shelf room is provided for the storage of toilet articles, shaving equipment and medicines for the largest families. The cabinets, made entirely of steel, with the exception of the high grade mirror, will last a lifetime even with constant, hard usage. The exposed hardware (hinges, catches, etc.) have a rust resisting finish.

Specifications—Recessed type. Open compartment below.

Finish: white lacquer or special colors upon request.

14 x 18-in. beveled mirror. Hinges interlocking, ball tipped.

Face dimensions: over-all height 30 3/4 in.; over-all width 20 1/2 in.; inside depth 4 1/2 in. Roughing-in dimensions: height 27 1/2 in.; width 17 1/2 in.; depth 4 in.

Model M: all dimensions identical except mirror which is 12x16 in.

Shipping weight 50 lb.



For further details and literature, write to:

ROCKFORD STEEL FURNITURE CO.

ROCKFORD,
ILLINOIS

KITCHEN MAID STANDARD UNIT SYSTEM

Made by
WASMUTH-ENDICOTT COMPANY
Andrews, Indiana

Products

Kitchen Maid Standard Units—including Kitchen Cabinets, Refrigerators, Dish and Broom Closets, Linen Cupboards, Folding Ironing Boards, Pulmanooks, Divider Cabinets, Complete Kitchenette Assemblages (including range and sink).

Kitchen Maid Standard Unit System

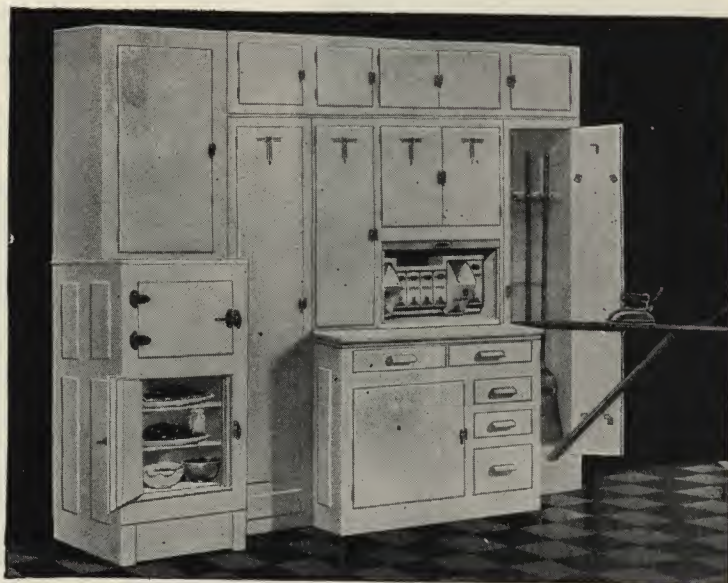
The Kitchen Maid "Unit Idea" organizes the kitchen into a complete, efficient system of compact storage and working equipment. It includes units covering every kitchen need—each unit complete in itself yet designed so that it can be used either alone or in combination with other units.

Kitchen Maid Standard Units are built to conserve space, save labor, organize kitchen work, and make the kitchen generally more efficient, clean and beautiful. They can be installed in kitchens already built or can be built into a kitchen specially designed to receive them. Units are standardized in construction—made for economy as well as quality. They cost no more than old-fashioned cupboards.

Kitchen Maid units represent the highest development of cabinet-craftsmanship. They are built from carefully kiln dried woods.

Kitchen Maid smooth door construction eliminates common panel doors. The doors are guaranteed not to warp or get out of line. All interior corners of Kitchen Maid Units are rounded, leaving no space for dirt to collect. The smooth door construction, hidden hinges and rounded corners of Kitchen Maid Units make possible an entirely new degree of cleanliness.

All latches and strikes on Kitchen Maid equipment are made of cast brass, heavily nickel plated. They will not rust and will remain bright and new looking over a long period of time.



No. 640 X Combination consisting of No. 640 Cabinet, No. 12 Broom Closet and Ironing Board, No. 58 Refrigerator, No. 59S Top Cupboard, No. 6402 Horizontal Dish Closet, No. 70 Vertical Dish Closet.

Kitchen Maid Colors

Kitchen Maid Units are finished in choice of Cactus Green, Lama Tan, Travertine Ivory, Dove Gray, Shasta White—all exclusive Kitchen Maid finishes. They may be secured in one coat of flat undercoat if desired.

Kitchen Maid Combinations

Combination 640-X, shown above, is only one of the many attractive and practical combinations made possible by Kitchen Maid Units. It includes six distinct units of equipment on one wall space—kitchen cabinet, top cupboard, refrigerator, vertical dish closet, horizontal dish closet, and broom closet and folding ironing board combined. Many a full sized pantry contains less actual usable space than this. The famous Kitchen Maid features of construction—rounded inside corners and smooth-surface, no-panel doors—are carried out in all units.

Broom Closet and Folding Ironing Board Combined

Here is a unit which fits in any kitchen or cabinet combination—no need for a special opening in the wall, it sets anywhere. It holds an average vacuum cleaner, brooms, mop, and has a shelf for cans of polish or the electric iron, and besides, the ironing board, which is easily suspended flat against the door when not in use.



No. 12 Broom Closet and Ironing Board



No. 70 Vertical Dish Closet



No. 640 Kitchen Maid Kitchen Cabinet



For further details and literature, write to:

WASMUTH-ENDICOTT COMPANY, Andrews, Ind.

HOME BUILDERS CATALOG

Kitchen Maid Standard Unit System—(Cont'd)

Kitchen Maid Kitchen Cabinets

As a part of the unit system, or by itself, the Kitchen Maid kitchen cabinet brings to any kitchen a convenience and cleanliness which is practically indispensable.

Aside from its many time-saving arrangements, the Kitchen Maid has the rounded inside corners and the no-panel construction of doors and drawers which eliminates 78 old-fashioned corners. For convenience, it has a metal lined compartment, tilting flour bin, extension porcelain work top, automatic sugar jar, efficiency charts, condiment jars, skillet compartment, bread drawer with self-acting cover, and many other advantages.

The Kitchen Maid cabinet is widely known for the sturdiness of its construction, with every joint dovetailed or tenoned, and well seasoned material used throughout.

Kitchen Maid Refrigerators

Kitchen Maid Refrigerators are built to conform to the most exacting requirements of mechanical refrigerating engineers. The materials, finish, workmanship—and most important of all, the insulation—are of the very highest type.



No. 58 Refrigerator

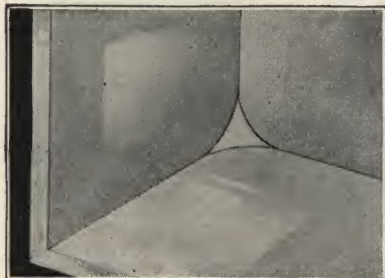
Solidly built, carrying out the smooth door style and excellent enamel finish of the remainder of the Kitchen Maid line, these refrigerators are handsome and substantial. The interiors are lined with galvanized iron white enameled in the food compartments, insuring years of rust-resisting service.

Good insulation, which is the fundamental requisite of good refrigeration, is insured by the use of dead air spaces and an inch of Nonpareil Corkboard.

Dish Closets

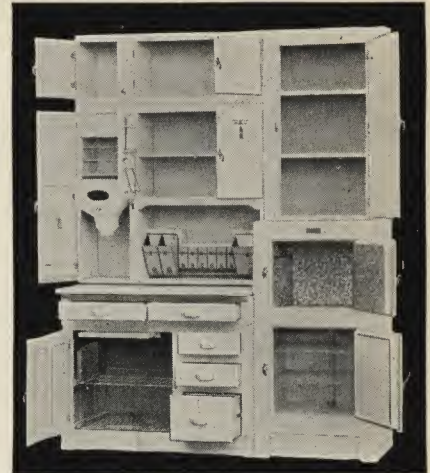
Kitchen Maid Dish Closets come in both vertical and horizontal styles. The Vertical Dish Closet No. 70 contains five roomy shelves. This unit is used in combination with any of the cabinets and top cupboards and it also may be used alone in a corner of the kitchen or on an open wall space, providing valuable storage room for dishes, utensils, canned goods, etc. This unit may also be used as a desirable linen and utility cupboard for the bathroom.

The horizontal dish cupboard No. 6402 is 15" in height and made in varying widths to fit various-sized kitchen cabinets and unit combinations.



All interior cupboard corners are rounded out with Kitchen Maid rounded inside corner blocks, making them as easy to keep clean as the inside of a cup.

A Kitchen Maid Unit combination for the smaller kitchen. Consists of No. 640 Cabinet, No. 6400 Top Cupboard, No. 58 Refrigerator and No. 59S Top Cupboard.

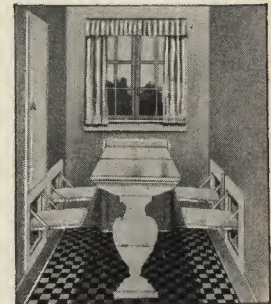


Kitchen Maid Pulmanook

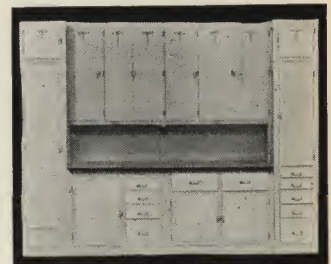
The Pulmanook converts the kitchen into both kitchen and breakfast room. Quickly both table and chairs can be folded out of the way after use, leaving an open space for ironing or other purposes during the rest of the day.

The table unfolds from a compact case. When closed it takes up practically no room. When open, it is a staunch and rigid table, large enough for four people. The chairs unfold from the wall and take up no space when folded. They make a substantial seat for persons of any weight.

The Pulmanook is attractive, comfortable and solidly built. It has the added advantage of being able to be cleaned easily and quickly. There is a style of Pulmanook for every kitchen—whether one wall, a corner of the kitchen or a special alcove is available.



Kitchen Maid Pulmanook. In ten seconds, table and chairs may be folded out of the way.



The Butlery—For new service halls and large kitchens. Combinations afford great elasticity.

Kitchen Maid Butlery Combinations

Where space permits in pantries, service halls and large kitchens, nothing is more convenient nor more attractive than a combination of Butlery Units.

Here in the upper cupboards is space for large supplies of china and glassware. In the lower sections roomy, deep linen drawers and added cupboard space is arranged.



For further details and literature, write to:

WASMUTH-ENDICOTT COMPANY, Andrews, Ind.

Sedgwick Dumb Waiters and Elevators

Manufactured by
SEDGWICK MACHINE WORKS
 134 West 15th Street, New York
 Factory—Poughkeepsie, New York

Homes equipped with one or more of the many types of Sedgwick Hand Power Dumb Waiters and Elevators are more livable. They are also more easily sold, for prospective buyers who are up-to-date will readily appreciate how Sedgwick Dumb Waiters, Fuel Lifts, Trunk Lifts, Ash Hoists and other outfits save labor and effort and how they protect woodwork, doors, stairs, floors and other parts of the house subject to damage whenever objects of any size or weight are moved.

The universally recognized superiority of Sedgwick Dumb Waiters and Elevators is due to the high-grade material used in their manufacture and to exclusive improvements in design

OUR MOTTO

The profit in any sale is of less importance than the opportunity the transaction affords to make of the purchaser a permanent customer and friend.

and workmanship. Sedgwick machines run on and on, year after year, providing the utmost in economy because of their strength, durability and ease of operation.

The greatest satisfaction is assured by the selection of the outfit exactly suitable to the conditions and requirements of service. Consequently we take a personal interest in making recommendations

which shall secure to our customers the best results. Our vast collection of drawings shows outfits designed for special conditions and requirements which we have met in thirty-six years of specialization in the manufacture and installation of hand power dumb waiters and elevators.

FOUR SEDGWICK OUTFITS SHOWN

Sedgwick Dumb Waiters are a wonderful convenience in the home. The Automatic Brake assures absolute safety in operation. Recent Sedgwick improvements have lessened the number of parts, making the outfits easier to install and doubling the life of the car cable.

Sedgwick Fuel Lifts make fireplaces usable, doing away with the muss and fuss of carrying wood through the house. An attractive feature with which more homes are being equipped each year.

Sedgwick Trunk Lifts appeal to those who have seen walls gouged, stair rails broken and doors and trim marred by carrying trunks and other heavy objects from one floor to another.

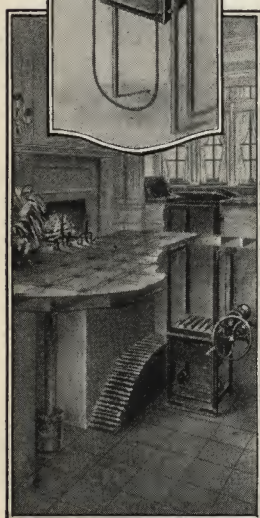
Sedgwick Invalid Elevators are a blessing to persons who cannot or should not climb stairs. They make the entire house accessible to invalids otherwise confined to a single floor. Easily operated and absolutely safe.

SEDGWICK SERVICE

OUR SERVICE DEPARTMENT will gladly send you catalog, blueprints, specifications and full details of outfit in which you are interested. Write for Forms 136, which outline information needed by us to recommend the exact outfit that will give best results in operation.

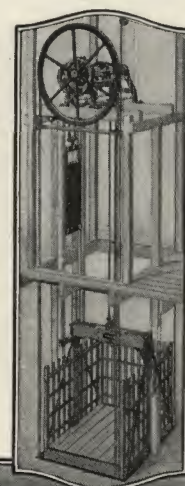
Your copy of our New Catalog is ready to be mailed

Dumb Waiter



Fuel Lift

Trunk Lift



Invalid Elevator



For further details and literature write to:

SEDGWICK MACHINE WORKS

134 WEST 15th ST.
 NEW YORK

Dr. Berry Hygienic Ventilators

Manufactured by
NIAGARA METAL WEATHER STRIP CO.

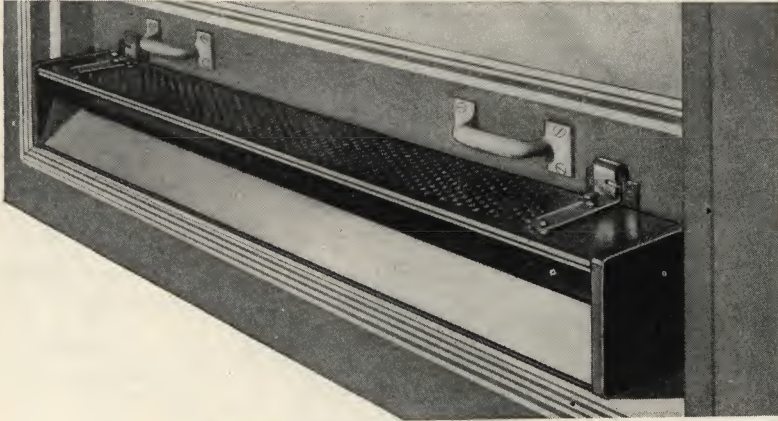
Established 1912

37 W. Tupper St.

Buffalo, N. Y.

For Weatherstrips See Page 277

Dr. Berry Hygienic Window Ventilator



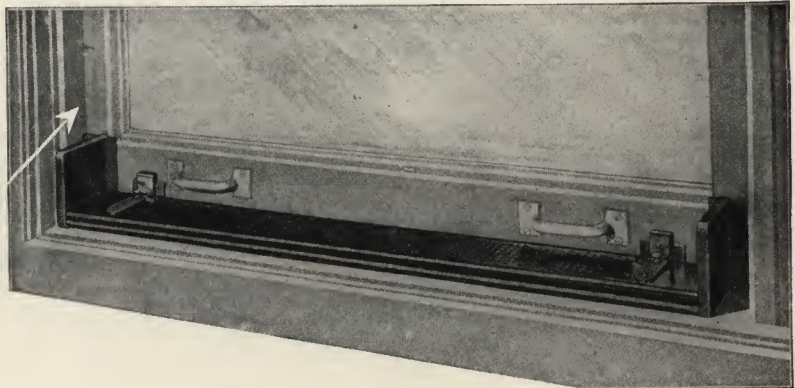
Window Open With Ventilator Attached

Fresh Air Without Drafts, Dirt, Rain, Snow or Danger of Burglars

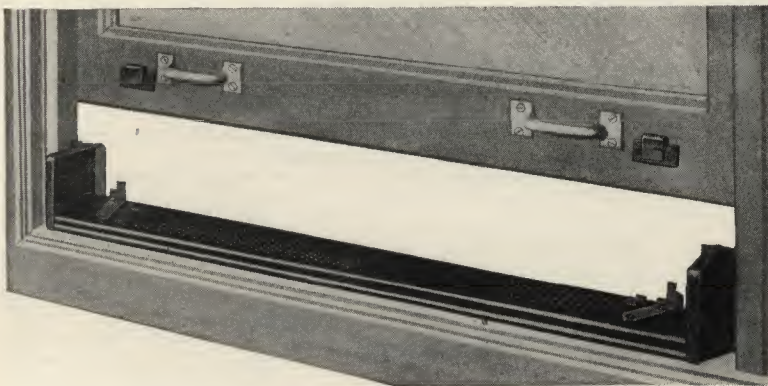
No home or office should be without these ventilators. Made of heavily-enameled, non-rusting steel, they are easily installed by anyone with a screwdriver, and cannot get out of order. They admit an ample supply of fresh air, while the impure air is forced out through the opening between the upper and lower sashes. More, the air is screened, assuring perfect ventilation, no matter what the weather. Quickly detached to allow full opening of window when desired. Sizes to fit all windows.

It not only *lets in* an abundance of *fresh air*, and *keeps out* drafts, but the Dr. Berry Window Ventilator also *keeps out* rain, sleet, snow, *locks* the window while open. It *keeps out* dust, flies, insects. It keeps your curtains rugs, floors, woodwork and furniture from *being soiled and spoiled*. In short, this practical invention gives you every comfort of a perfectly ventilated room, *with health*—and *without* the discomforts and dangers of an open window. It positively *solves the FRESH AIR* problem for you at a cost so trifling that you can easily afford to install one in every room in your home.

Window
Stop



Window Closed With Ventilator Attached



Window Open With Ventilator Not in Use

How to Take Measurements

To determine the size of ventilator needed, *close your window* and measure (with rule, not tape measure) from window stop to window stop on inside of sill close up to window. The "window stop" is the perpendicular strip that holds the window in place. Any size in this table will fit window openings any part of three inches wider than the length of the ventilator.

Sizes Fit All Window Openings

Dr. Berry Ventilators come in sizes of three inches apart from 17 to 71 inches. Any of these sizes will fit window openings that are any part of three inches wider than the length of the ventilator.



For further details and
literature, write to:

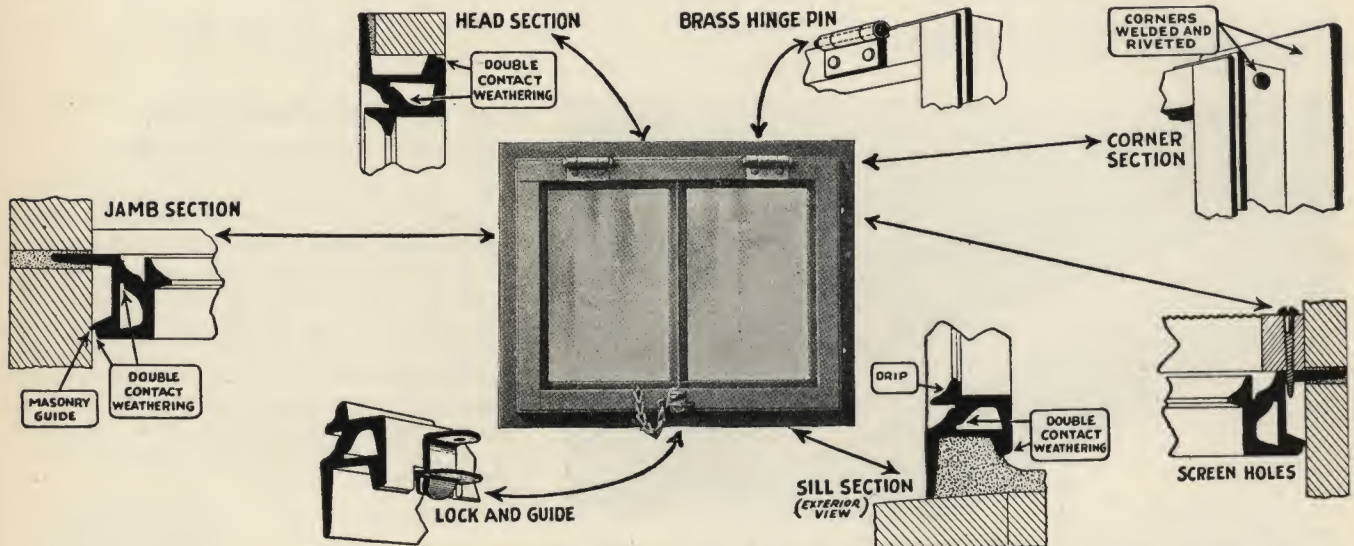
NIAGARA METAL WEATHER STRIP CO.

37 W. Tupper St.
Buffalo, N. Y.

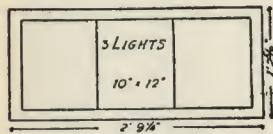
Crescent Steel Basement Windows

Manufactured by
CRESCENT STEEL COMPANY
St. Louis, Mo.

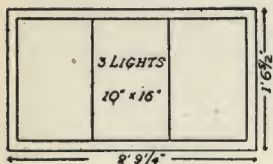
Exclusive Features of Crescent Steel Windows



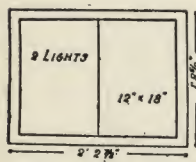
1. Only heavy steel bars used, no light gauge metal used at all.
2. Ventilators have patented double contact weathering.
3. Hinges are bushed against corrosion.
4. Corners of frame are riveted and then welded together, making a solid, stiff rigid frame.
5. Complete sash and frame, painted ready to install.
6. Lock and hinges attached. Brass hinge pins are removable. Glazing clips furnished with each sash.
7. Automatic guide insures easy operating sash.
8. Easily used with any type of foundation construction.



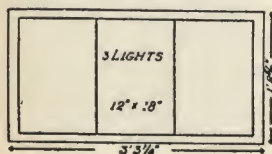
Type 3113-A



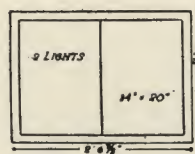
Type 3113-B



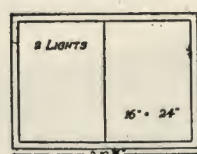
Type 2112-C



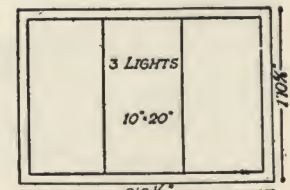
Type 3113-D



Type 2112-E



Type 2112-F



Type 3113-G

Crescent Basement Windows Are Sold by Lumber, Hardware and Building Supply Dealers

Types and Sizes

TYPE 3113A
Three lights wide; each glass 10 in. x 12 in.;
Masonry opening 2 ft. 9 1/4 in. wide by 1 ft.
2 1/2 in. high. Weight: 27 lbs.

TYPE 3113B
Three lights wide; each glass 10 in. x 16 in.;
Masonry opening 2 ft. 9 1/4 in. wide by 1 ft.
6 1/2 in. high. Weight: 30 lbs.

TYPE 2112C
Two lights wide; each glass 12 in. x 18 in.;
Masonry opening 2 ft. 2 3/4 in. wide by 1 ft.
8 1/2 in. high. Weight: 27 lbs.

TYPE 3113G
Three lights wide; each glass 10 in. x 20 in.;
Masonry opening 2 ft. 9 1/4 in. wide by 1 ft.
10 1/2 in. high. Weight: 33 lbs.

TYPE 3113D
Three lights wide; each glass 12 in. x 18 in.;
Masonry opening 3 ft. 3 1/4 in. wide by 1 ft.
8 1/2 in. high. Weight: 35 lbs.

TYPE 2112E
Two lights wide; each glass 14 in. x 20 in.;
Masonry opening 2 ft. 6 1/4 in. wide by 1 ft.
10 1/2 in. high. Weight: 30 lbs.

TYPE 2112F
Two lights wide; each glass 16 in. x 24 in.;
Masonry opening 2 ft. 10 1/4 in. wide by 2 ft.
2 1/2 in. high. Weight: 34 lbs.

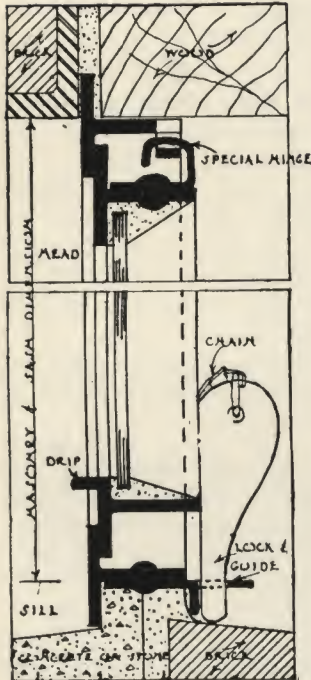
Complete Catalog Mailed on Request



For further details and literature, write to: **CRESCENT STEEL COMPANY, ST. LOUIS, MO.**

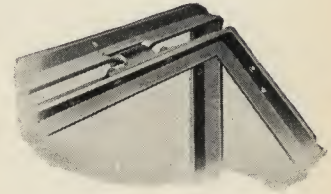
NATIONAL BASEMENT WINDOWS

Manufactured By
NATIONAL STEEL WINDOW COMPANY
 6900 South Water St.—Saint Louis, Mo.



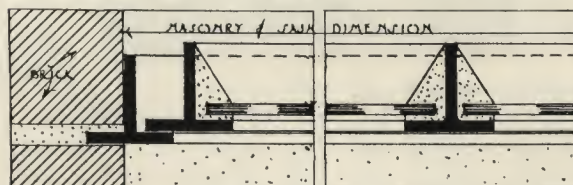
National Windows have many features that make them first choice with careful builders. No steel window is simpler in design or better made. Frame and ventilator are built of $\frac{1}{4}$ inch steel bars. Frame is one piece—no possibility of it rocking out of shape, even with the roughest handling. Ventilator is made of two pieces, with effective drips and weathering to insure a weather-tight window. These ventilators allow 100% ventilation and they are interchangeable for same size frames. Easy to screen, too—see detail drawings.

A high class steel window selling at a moderate price—that's National. And that's what you want.



SPECIAL HINGES

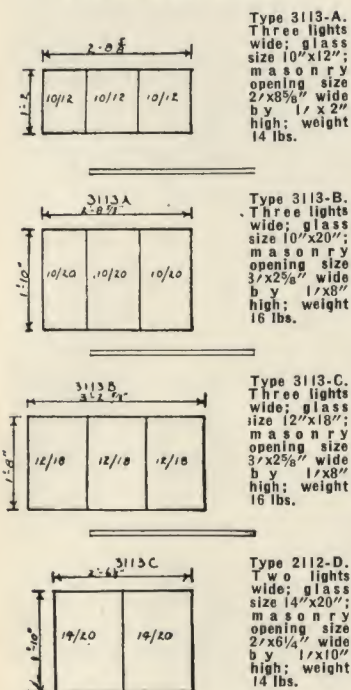
Ventilators are attached to frames by ingenious hinges. To remove ventilator for glazing or cleaning, simply tilt it and pull it in. No tools needed; and no hinge-pins or rivets need be removed.



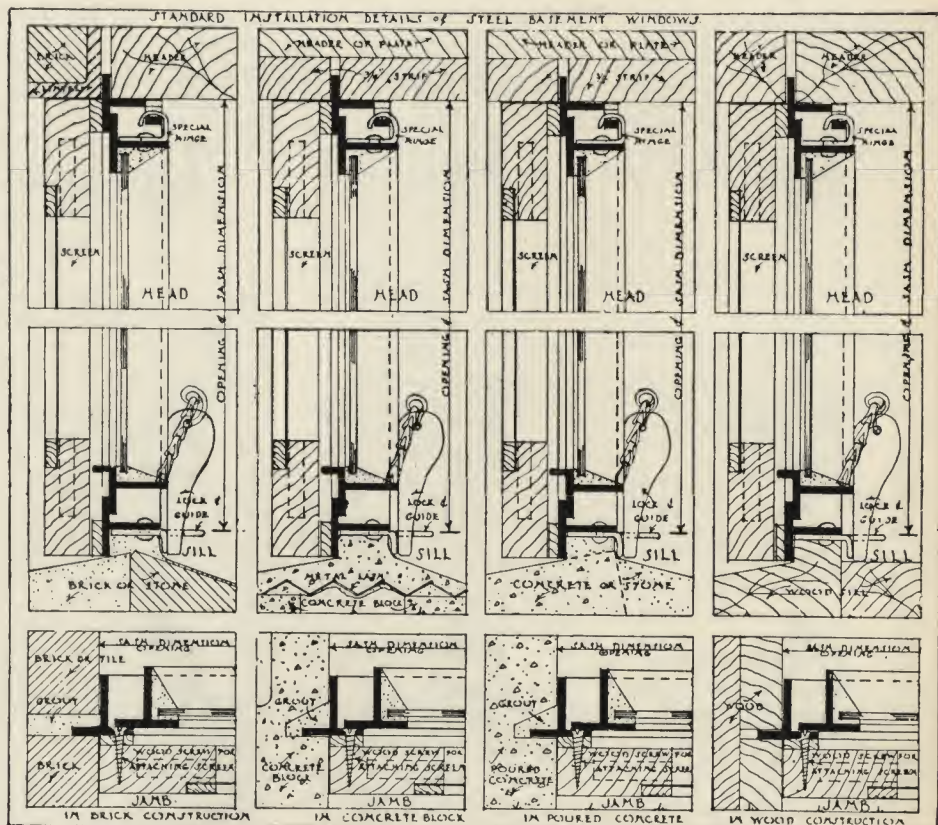
How National Basement Windows Are Installed

The diagrams below show how easy it is to install National Steel Basement Windows in any type of construction. You can recommend these windows because they admit 50% to 70% more light, provide better ventilation, can't warp or crack, can't swell or stick, always open and shut easily; also because they are weather-tight, wear-proof, complete with hardware, already painted and fire retardant.

TYPES AND SIZES



Furnished complete with sash and frame, but no glass.
 Painted one coat of gray.



For further details and literature, write to:

NATIONAL STEEL WINDOW COMPANY

6900 S. Water St.
 ST. LOUIS, MO.

Fenestra Residential Windows

Manufactured by
DETROIT STEEL PRODUCTS CO.
 2250 E. Grand Blvd., Detroit, Mich.

Fenestra Casements combine the beauty of small panes and slender muntins with the durability of solid steel bars rolled with heavy fillets in all re-entrant angles. Electrically welded corners and interlocked muntins make them exceptionally strong. Fenestra Casements cannot warp, swell, shrink or stick.

Their greater glass area provides better lighting than ordinary windows of the same dimensions. They provide better ventilation because from 75 to 100 per cent of the windows' surface can be opened, as compared to a maximum of 50 per cent in double-hung windows, and the open out swing leaves deflect breezes from any one of three directions into the interior.

Frame and sash are formed from Z-bars that provide a two-point, flat contact around the entire ventilator for better weathering. Fenestra Casements do not require weatherstrips.

Swing leaves are hung on especially designed solid rolled steel hinges. Hinge pins are of bronze, and are fitted into bronze bushings, providing 100 per cent bronze bearing at all moving points to prevent hinge bind.



Fenestra Casements are screened from the inside, which protects the draperies and, due to the extension hinges described above, are easily washed from the inside without sitting on the sill.

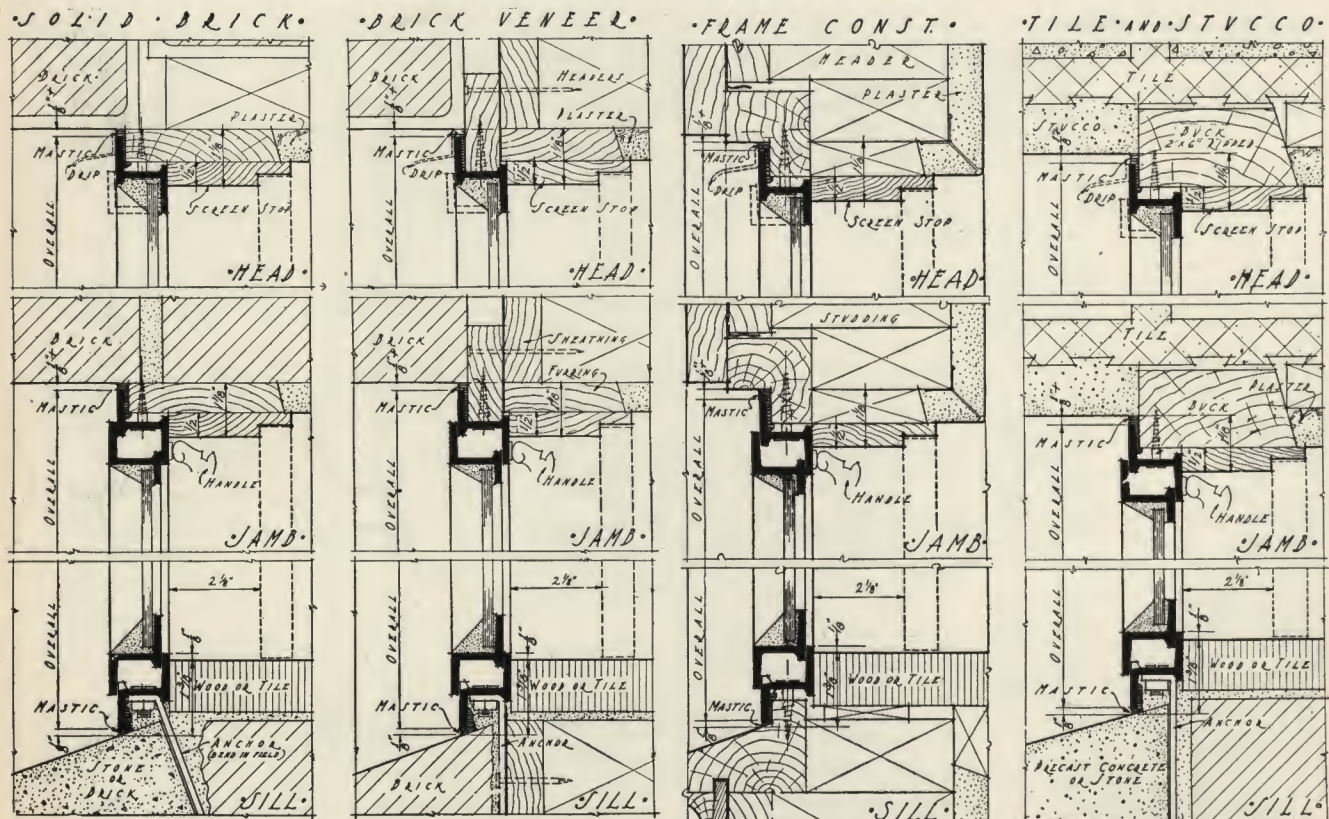
Hardware

All Fenestra Casements are equipped with ornamental bracket and locking handle and any one of the three types of stay operator. Hardware, included in the cost of the windows, is in black iron. (Bronze hardware slightly extra.) For operating Fenestra Casements without opening the inside screens, three types of underscreen operators are available at slight extra cost.

Shipped Complete

Fenestra Casements are shipped with sash and frames assembled (stay operators and locking handle separate) ready for installation in any type of construction. Sufficient mastic is included in each shipment of casements, at no extra cost, to seal the joint between the frame of the window and the masonry, or other construction.

TYPICAL INSTALLATION DETAILS



For further details and literature, write to:

DETROIT STEEL PRODUCTS CO.

DETROIT MICHIGAN

Units Joined by Mullions

Any number of Fenestra Casements can be combined in one opening vertically or horizontally by means of Fenestra T-bar mullions. Each mullion adds $\frac{1}{8}$ inch to the overall width or height of the units joined.

Symmetrical Combinations

Units of the same height may be combined horizontally, and units of the same width may be combined vertically. Suppose you want to fill an opening 6 ft. 4 in. wide by 5 ft. 8 in. high. In the table at the left, you will find a width dimension of 6 ft. 3 in., and a height dimension of 5 ft. 6 $\frac{7}{8}$ in. These will probably be close enough for your purpose. In the columns to the right of these figures, you will see that you need two

HEIGHTS

| STANDARD PANEL HEIGHT | UNIT HEIGHT | NUMBER OF UNITS | OVERALL HEIGHT |
|-----------------------|-------------|-----------------|----------------|
| 2'-3 1/2" | 2 | 1 | 2 |
| 3'-3 1/2" | 3 | 1 | 3 |
| 4'-3 1/2" | 4 | 1 | 4 |
| 4'-6 3/8" | 4 | 2 | 2, 2 |
| 5'-4" | 5 | 1 | 5 |
| 5'-6 7/8" | 5 | 2 | 3, 2 |
| 6'-7 1/8" | 6 | 2 | 3, 3 |
| 6'-7 1/8" | 6 | 2 | 4, 2 |
| 7'-7 3/8" | 7 | 2 | 4, 3 |
| 8'-7 3/8" | 8 | 2 | 4, 4 |

WIDTHS

| STANDARD PANEL WIDTH | UNIT WIDTH | NUMBER OF UNITS | OVERALL WIDTH |
|----------------------|------------|-----------------|---------------|
| 1'-7 1/8" | 2 | 1 | 2 |
| 3'-1 1/8" | 4 | 1 | 4 |
| 3'-2 3/8" | 4 | 2 | 2, 2 |
| 4'-7 1/8" | 6 | 1 | 6 |
| 4'-10 3/8" | 6 | 3 | 2, 2, 2 |
| 6'-3" | 8 | 2 | 4, 4 |
| 6'-4 5/8" | 8 | 3 | 2, 4, 2 |
| 6'-5 3/8" | 8 | 4 | 2, 2, 2, 2 |
| 7'-10 3/8" | 10 | 3 | 2, 6, 2 |
| 7'-10 3/8" | 10 | 3 | 4, 2, 4 |
| 8'-1 1/8" | 10 | 5 | 2, 2, 2, 2, 2 |

units, each four panes wide, to make the width and two units, one three panes high, and one two panes high, to make the height. Look in the chart at the right to find the units meeting these requirements. You will need two 4326 units, with two 4224 units above them, to fill the opening, with two mullions to join them.

Stock Types and Sizes

Sizes shown with dark background stocked in Fenestra warehouses and by Fenestra dealers for immediate delivery. Other sizes fabricated at factory on order from pre-cut bars.

STANDARD ANI STOCK TYPES - STOCK TYPES SHOWN WITH SHADED BACKGROUNDS

LUPTON STEEL WINDOWS FOR HOMES



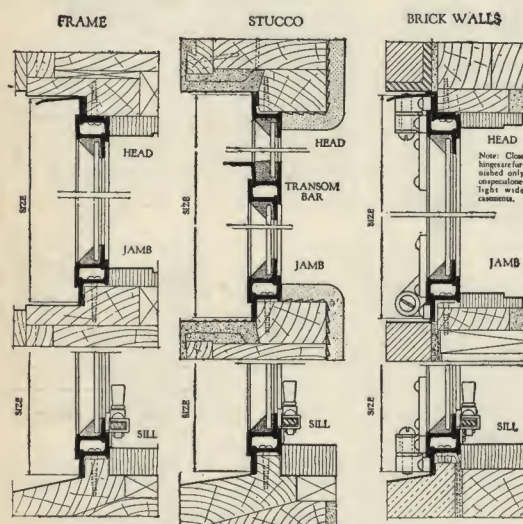
Manufactured by
DAVID LUPTON'S SONS COMPANY
Allegheny Ave. and Tulip St., Philadelphia
Branch Offices in All Principal Cities



Why Home Builders and Owners Install Lupton Steel Casements

1. They improve the appearance of any type of home, whatever its architectural style.
2. They are thoroughly practical—weather-tight, easy to open and close, easy to wash from inside the room, easy to screen and to curtain in good taste.
3. They mark a building as modern and well constructed and thereby increase its renting and sale value.
4. They give a lifetime of economical service with no expense for upkeep nor repairs.
5. They are easy to install and easy to buy from material dealers everywhere.
6. Their cost is remarkably low.

DETAILS OF CONSTRUCTION



Economy of Standard Units

The chart at the right shows the 18 stock units and 35 standard units of Lupton Residence Casements. These units are low in cost and save time and money in erection. Used singly or in combination they will be found suitable for practically every window requirement.

Lupton Pivoted Windows

Lupton Pivoted Windows in 39 standard sizes, are the accepted windows for all types of business buildings.

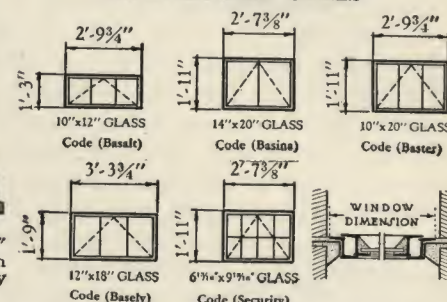


Unit 6528, weight 96 lbs., 4' 10 1/2" by 5' 1 3/8", lists at \$25.40, with hardware but without glass. Slightly higher in South and West.

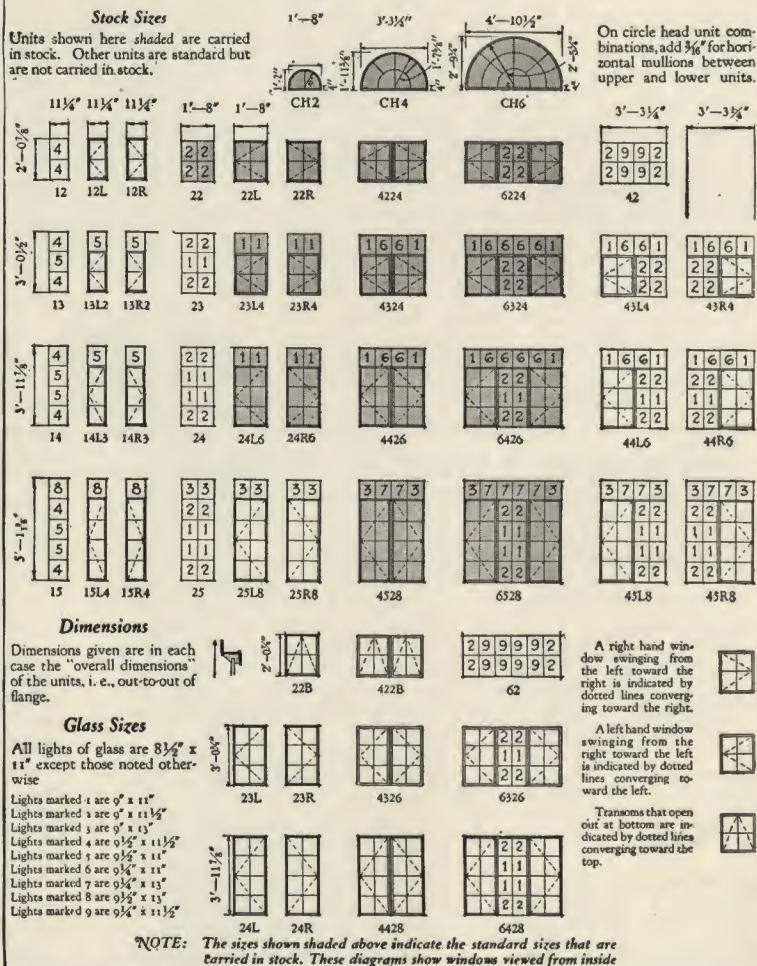
Lupton Basement Windows

These solidly welded steel windows make the basement a light, airy and useful part of the house. Five standard sizes, ranging in list price from \$2.95 to \$4.90, suit all foundation wall conditions.

STANDARD SIZES



STANDARD SIZES



Lupton **STEEL Windows**



For further details and literature, write to:

DAVID LUPTON'S SONS CO., Philadelphia, Pa.

VENTO PUTTYLESS STEEL BASEMENT WINDOWS

Manufactured by
VENTO STEEL SASH COMPANY
Muskegon Heights, Michigan

Products

"Vento" Puttyless Steel Basement Windows.

"Vento" Puttyless Steel Laundry Windows.

"Vento" Puttyless Steel Storm Sash.

"Vento" Puttyless Steel Garage Window.

"Vento" Puttyless Steel Store Window.

"Vento" Steel Industrial Windows.

"Vento" Metal Bound Screens.

"Vento" Steel Thresholds.

Quality

"Vento" Puttyless Steel Windows are made of **12 gauge steel** electrically welded at all corners into solid steel frames. Jigged square. No plumbing to be done on the job. Will not stick, bind or sag.

Service

"Vento" Products are nationally distributed through Building Supply Dealers and Lumber Dealers. If your dealer hasn't "Vento" in stock, write us for prompt shipment.

Puttyless Features

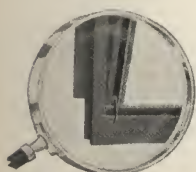
"Vento" Puttyless Steel Windows are made with a calking of chemically treated cork. This does away with the "Bed-Putty" required on all other steel windows. The glass or screen is held against this "bedcork" by "Vento" patented clips, so made that the more the window is used, the tighter they hold the glass in place. The Puttyless feature saves cost of glazing at first installation and cost to the house owner in case window pane is broken.

Ventilation

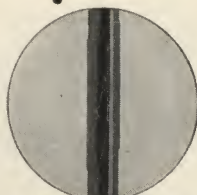
"Vento" is the only window on the market that opens in at the top, with $\frac{5}{8}$ -inch outside watershed rail, keeping the basement free from water which usually seeps in any other window construction. Two or three windows opened at top give all the ventilation needed. "Vento" can be opened full wide as any other window in case of use as a Coal Window.

Weather and Waterproof

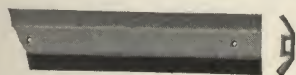
The "Bedding" of cork against which the glass is held by "Vento" Patented Clips makes the window weather and water tight. When the window is open from the top the slant is out and the water is shed as the sash sets over a $\frac{5}{8}$ -inch water rail. The glass is set into a $\frac{3}{8}$ -inch water shed rail so that all steam in the laundry room runs down and out. No water runs or seeps into the basement when "Vento"



Patent Lock



Patent Glazing Clip



Steel Thresholds

basement windows are used. The same principle applies to the utility or garage windows and side wall sash.

Standard Sizes

"Vento" Puttyless Steel Basement Windows are made in nine standard sizes. Special sizes priced on request. "Vento" Puttyless Steel Garage Windows are made in three standard sizes. Special sizes made upon request. "Vento" screens and combination storm window and screens made to fit all "Vento" Windows.

Basement Windows

"Vento" Puttyless Steel Basement Window contains 144 square inches more of glass than a wooden window in the same masonry or wall opening. Thus a wall opening fitted with a "Vento" Puttyless Steel Window will give 80 per cent more light than the same wall opening fitted with a wooden frame and window.

Laundry Windows

"Vento" Mullion Windows comprise two regular "Vento" Puttyless Steel Basement Windows electrically welded together into one solid window, giving more daylight when set over "Laundry Tubs." These are also adaptable to store room above shelving and in store fronts under show windows.

Combination Storm Window and Screens

"Vento" basement windows are tapped and drilled to be fitted with screens and "Vento" Combination Storm Window. This storm sash is puttyless, allowing glass to be set each fall, held by "Vento" Clips. In the spring of the year, glass can be removed and pane size screens fitted, same held by "Vento" Clips.

Garage Windows

The "Vento" Puttyless Steel Utility Windows are made in three standard sizes. The "Vento" inside ventilation feature allows windows to be screened on outside. No "half in and half out" window when open. "Vento" top opening keeps window free from interference. Choice of either Top 3-opening or Lower 3-opening.

Screen Construction

"Vento" Metal Bound Outside Screens are made of steel electrically welded on each corner. Fitted with 16 mesh galvanized or copper screen cloth which is held by one-half oval steel inset fastened by rust proof screws which can be removed and new screen re-set by anyone.

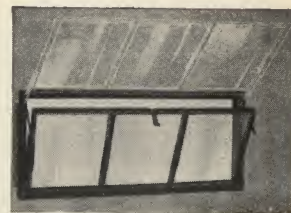
Safety Locks

When "Vento" windows are opened at the top a safety lock can be set at the bottom which makes the basement safe from intrusion even while open. When window is closed the lock is at the top, hidden from view of anyone outside. These features are exclusive.

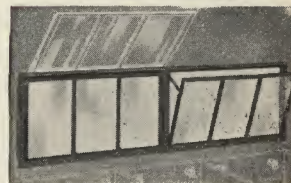
Stability

A "Vento" Puttyless Steel Window will last as long as the building and longer if painted once a year. Will not sag, bind or stick. No swelling on account of rain, ice or snow. "Vento" Window is the only window that can be operated in winter as well as summer. Open the window in at the top and the snow and ice at bottom is broken loose. Cheaper than wood.

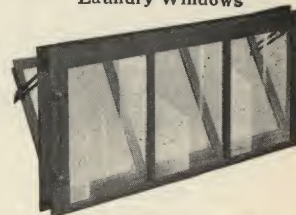
If you want the BEST and SAFEST, don't build without "Vento."



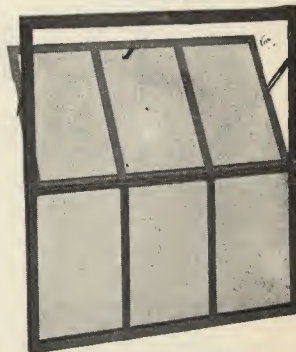
"Vento" Puttyless Steel Basement Windows



"Vento" Puttyless Steel Laundry Windows



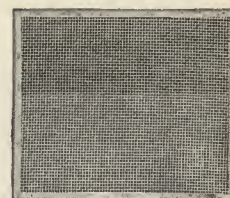
"Vento" Puttyless Steel Storm Sash



"Vento" Puttyless Steel Garage Window



"Vento" Metal Bound Outside Screen



"Vento" Pane Size 16 Mesh Screen



For further details and literature, write to:

VENTO STEEL SASH COMPANY

MUSKEGON HEIGHTS MICH.

Ornamental Iron of Artistic Merit

Manufactured by
WESTERN ARCHITECTURAL IRON CO.
211 W. Schiller St., Chicago, Ill.



See how much the wrought iron adds to the appearance of this home. Forever beautiful, such a building retains a high sale value in spite of age. All its life it marks its owner as a person of the highest taste. Yet the cost of the ironwork is only a small fraction of the total.

IDEAL *Steel Basement Windows*

A BASEMENT window that outlasts the building! Absolutely proof against rain, wind or rattle. A sash that can be lifted out as easily as taking down a shade roller—no screws, bolts or cotter-pins. Ideal—the original removable steel basement windows—are lower in cost than those of wood, less expensive to install, and when the length of their life is considered, their total economy reaches a surprising figure.

Five standard sizes are carried in stock. The sash being interchangeable, need not be marked for individual openings. All are made in one-piece, solid steel frame, mitred at the corners and welded into one solid unit that cannot warp or sag.

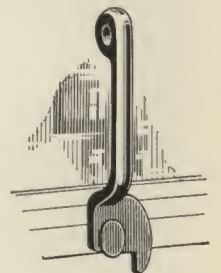
Install steel basement windows as a matter of course. And specify Ideal Steel Basement Windows because of their exclusive and valuable features, notwithstanding which, Ideal Steel Basement Windows cost no more than those of the ordinary type.

Write for literature describing simple method of installation and showing list of standard sizes.

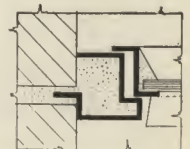


The illustration shows an Ideal Steel Basement sash being lifted from the frame, the sash being swung inward, the left-hand lug lifted easily out of the slotted socket and a slight movement to the left disengaging the right-hand lug. To replace, the operation is, of course, merely reversed.

The Ideal cam-action latch which absolutely eliminates wind, rain and rattles.



This method of construction costs us more, but it pays for itself a hundredfold in the user's satisfaction. It insures years of good service and prevents any likelihood of the window springing from alignment.



For further details and literature write to:

WESTERN ARCHITECTURAL IRON CO.

211 W. SCHILLER ST.
CHICAGO, ILL.

MONARCH METAL PRODUCTS CO.

Manufacturers of Casement Hardware

5024 Penrose Street
ST. LOUIS, MO.

Products

CASEMENT HARDWARE, including:
Control Lock. Casement Check.
Automatic Stay. Surface Bolt.



Features of Monarch Casement Hardware

- (1) Simple in design.
- (2) Neat in appearance.
- (3) Noiseless, as there are no gears, ratchets or keys.

Service

Our representatives will be glad to call and demonstrate samples.

Monarch casement hardware is sold by all leading dealers.

Literature

Write for our A. I. A. Classification File 27c2.

This manual will give you all necessary information for specifications.

Monarch Control Lock

The control lock for the outswinging casement window will permit the operation of the sash without raising the inside screen. See illustration.

It can be used on top of the stool as well as underneath with equal results and will lock the sash securely without rattle.

There are no gears, ratchets or keys in the Monarch control lock to become out of order and rattle.

Made in brass and steel.

Monarch Surface Bolt

The Monarch surface bolt is suited for use on casement windows, French doors or any type of hinged opening.

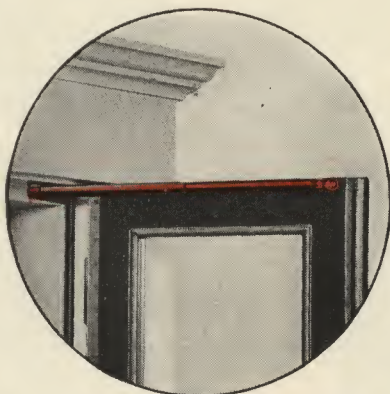
Made of brass and steel.

Sizes, $\frac{1}{2}$ and $\frac{3}{8}$ in.

Monarch Automatic Stay

For inswinging or outswinging casements, transoms, pivoted windows and doors. It is adjustable and can be adjusted to secure the necessary friction by simply turning the outer tube to the right or left, depending on the amount of friction required to hold the sash in position. Can be used on head or sill with equal results. Requires but $\frac{3}{4}$ -in. space.

Made in brass only.

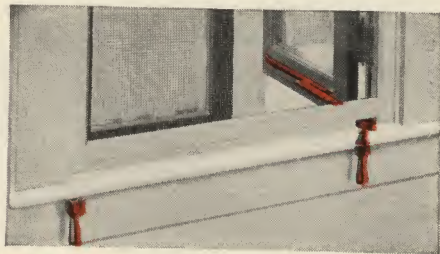


Monarch Casement Stay Applied at Head of Windows

Monarch Casement Check

The Monarch casement check can be used on both inswinging and outswinging casements, transoms, window seats, chests, etc. It is adjustable and can be adjusted by turning the screw in the pivot plate.

Made of steel and brass.



Monarch Control Lock Applied on Top and Below Stool, with Screen in Place



Monarch Casement Check Applied on Sill of Casement Window



For further details and literature, write to:

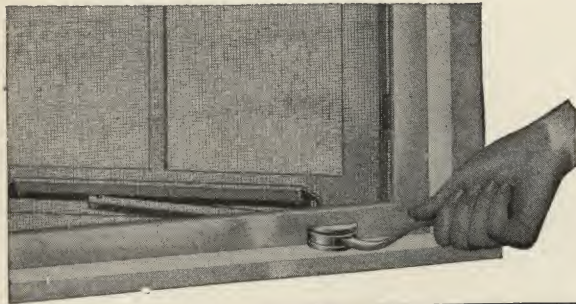
MONARCH METAL PRODUCTS CO.

5024 Penrose St.
ST. LOUIS, MO.

Win-Dor

CASEMENT WINDOW HARDWARE

Surface Type Operator Series 7



Very economical method of controlling and operating wood casements through the screen.

To operate the casement it is simply necessary to press gently down upon the handle, swing it to right or left and release the pressure as the casement comes to rest in the desired position. Pressure upon the handle releases the arm from holes in the channel attached to the casement and, conversely, absence of pressure allows the arm to come to rest in these same holes. It will be appreciated that this operation is entirely independent of friction and consequently no wind short of a hurricane can budge the casement from the position in which it is left open.

The pivot-block is mounted upon the sill and straddled by the screen. The handle fits into a slot in the side of the pivot-block and can be permanently secured there by unscrewing the top of the block and dropping a pin in place, or if it is desired to use a handle for more than one Operator, this pin is not used and the handle may be hung up in a convenient place. The Operator is very easy to install.

Series 7 recommended for light casements with ordinary hinges. For steel casements with cleaning hinges see Series 25, next column.

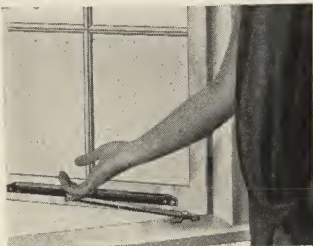
Operator No. 7—All-steel, Parkerized or Sherardized rust-proof, steel finish. Specify right or left hand as seen from within room.

No. 6 solid brass, standard finishes.

No. 5 combination brass and steel.

Special finishes to order.

Automatic Stay Series No. 61



This automatic stay is in no way a substitute for Operators but is the most effective equipment for use where screens are not needed such as in high apartment buildings. It costs surprisingly little and can be attached by anyone.

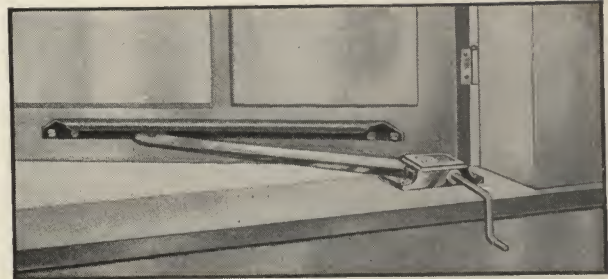
Only one hand is required to operate the stay since it is independent of the friction principle. Lifting the catch with one finger releases the lock. Releasing the catch automatically and positively locks the stay and holds the casement rigidly in position. Cannot rattle, cannot come loose.

No. 61 stay comes in steel, Sherardized or Parkerized.

No. 62 Stay, solid brass, standard finishes.

Sizes are same as for Operators (see above).

Win-Dor Geared Operator Series 25



This geared operator has been especially designed for use with steel casements but is equally effective when applied to wood casements.

It is exceptionally well proportioned and finished. Its beauty of line and workmanship makes it suitable for the finest construction, not only for private homes but also for apartments, hotels, hospitals, clubs and other large structures. It can be installed quickly and easily whether the casement has off-set "cleaning hinges" or the ordinary type. It enables you to control the casement easily without bending out over the window-sill in a precarious or strained position.

Screens never have to be opened because the operator acts through the screen. Particularly handsome in appearance, the operator is also of exceptional sturdiness. Working parts are bronze, thus insuring easy-running qualities and preventing stiff action due to the corrosion which so often takes place in damp or salt-air climates.

Four turns of the handle serve to either open or close the casement and the action is exceptionally smooth and easy. It is impossible to move the casement without turning the handle, and thus Win-Dor Series 25 Operator gives a large measure of burglar-proof security which can be made 100 per cent by the use of Win-Dor Series 20 Top Bolts.

Geared Operator Series 25 comes in the following styles and finishes at surprisingly moderate prices:



No. 25—Malleable iron and steel with bronze and brass bushings. Cadmium Udyllite or Parkerized finish.

No. 25A—Same as No. 25 except channel which is bronze instead of steel.

No. 25B—All brass or bronze. Dull brass or sanded antique brass finish. All other finishes to order.

Handle No. 250—Steel in brass finishes (dull or sanded antique). Can be cut off to conform to stool width. Standard lengths: 3, 5, 8 and 10 inches.

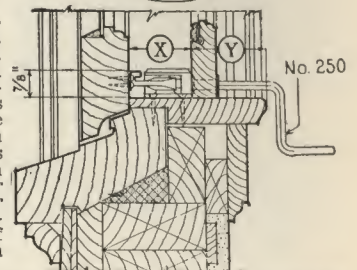
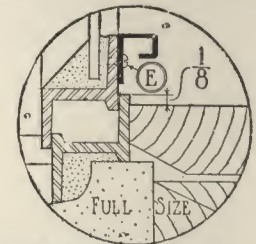
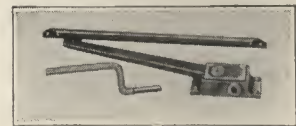
Handle No. 250B—Same as No. 250, but bronze instead of steel.

Handle No. 251—Turned brass knob grip, steel shaft. Can be permanently attached.

Handle No. 251B—Solid brass, otherwise like No. 251.

(See cuts at right)

Distance X may vary between a minimum of $2\frac{3}{4}$ in. and a maximum of $2\frac{1}{2}$ in. Distance Y is variable at will due to the fact that all handles for Series 25 Operators can be cut down to suit the width of the stool. When used on steel sash, the holes at E should be specified from the steel sash manufacturer for "Standard Win-Dor Punchings" which are standard practice on a majority of the steel casements now on the market.



For further details and literature, write to:

CASEMENT HARDWARE COMPANY

404-D N. WOOD ST.
CHICAGO, ILL.

See Next Page

Win-Dor

CASEMENT WINDOW HARDWARE

Win-Dor Top Bolt Series 20

This new development in the Win-Dor line offers a new measure of security and also of protection against the drafts caused by warped sash. Such a result has never been obtainable before at an economical cost.

A slender rod (which is attached to the window frame, to the mullion or to the sash itself) runs from top to bottom of the window opening. As the sash is pulled into a closed position (by means of a Series 25 Operator) this rod is automatically rotated by pressure on the projecting cam at its lower end in such a manner that a similar projecting arm on the upper end catches behind a "keeper" much as a door-latch catches in its keeper.

The continuing pressure upon the lower end of the device, as the sash is brought to a tight-closed position, forces the upper arm of the device to draw in the top of the casement until it makes a tight, draft-proof fit with the window frame.

The entire device is so simple in action and so sturdy in construction, that it cannot possibly get out of order, and its appearance is so unobtrusive that it in no way detracts from the appearance of the window-opening nor gives it a look of being overloaded with mechanical apparatus.

Series 20 Top Bolts come in the following metals and finishes:

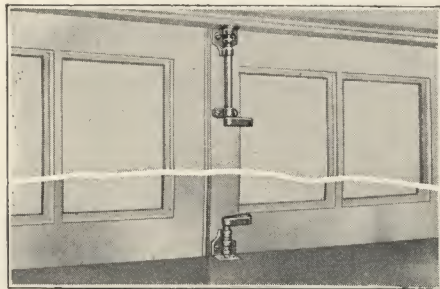
No. 20—Iron and steel rust-proofed.

No. 20A—Same as No. 20 but with brass brackets and cams.

No. 20B—Solid brass in all standard finishes.

For double wood casements with rabbeted meeting stiles, order Nos. 20½, 20½A or 20½B, similar to above.

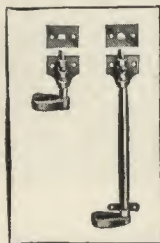
Cam Action "Bolt-Fast" Series 42



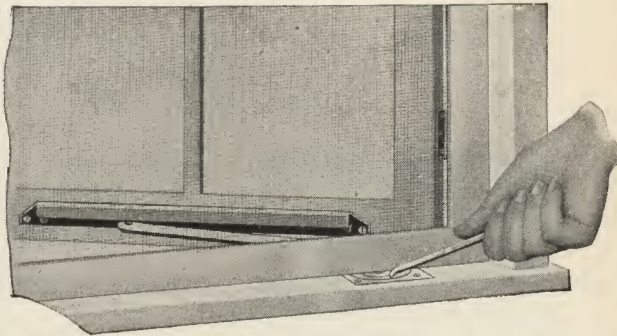
Where inside screens are not used and a bolt with automatic action similar to Series 20 is therefore not necessitated, Win-Dor "Bolt-Fast" Series 42 is exceptionally useful.

The nose of the bolt is tapered so that it readily engages in its socket. As the handle of the bolt is turned flat against the sash (in full-closed position) cam action takes place and the casement is drawn in that last quarter-inch which means so much in protection from drafts or rain leakages.

"Bolt-Fasts" come in 2½, 6, 9, 12 and 18 inch lengths. Order Nos. 42 or 43 for in-swing casements and O42 or O43 for out-swing. Nos. 43 and O43 are made of steel rust-proofed, while Nos. 42 and O42 are of solid brass in standard hardware finishes.



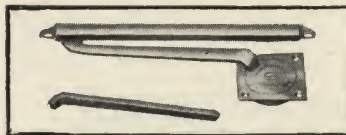
Flush Type Operator Series 24B



An effective method of controlling casements *under* the screen from inside the room.

This flush type Operator is sunk into the stool, thus making it particularly suitable for use with metal framed or roll-up type of screens.

It is particularly recommended for use with wood casements, Series 25 being better adapted for use with steel. It is readily installed without difficult calculations but on casements equipped with projecting or "cleaning" hinges Series No. 25 is recommended.



The flush type of Operator is particularly desirable in houses where appearance is the first consideration, for when the handle is detached Operator is almost invisible from within the room, due to the fact that the neat flush plate is sunk into the stool.

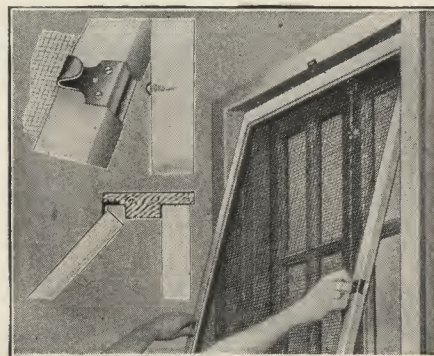
No. 24 B Operator comes in solid brass only and can be supplied in all standard hardware finishes.

Special finishes to order.

Plate 3¼-inch square, cut depth 11/16-inch. Other sizes same as for surface type.

Specify right or left hand as seen from within the room.

Screen Hardware Series 81



Simplest to use and quickest to install on the market. Screens "snap-in, snap-out" with a minimum of effort. Spring-clip handles, with corrugated contact-surfaces, snap over round-headed screws at each side of window frame. Top of screen slides behind angle plate at top of window frame.

No parts to lose over the winter, no careful calculations to make during installation. Set consists of two spring-clip handles, one angle-plate and eight screws.

No. 81 comes in Parkerized or Sherardized rust-proof steel. Can be painted to match woodwork.

No. 82 comes in solid brass, all standard hardware finishes or polished nickel-plate. Special finishes to order.



For further details and literature, write to:

CASEMENT WINDOW HARDWARE COMPANY

404-D N. WOOD ST.
CHICAGO, ILL.

"AIR-WAY" Multifold Window Hardware

Made By

RICHARDS-WILCOX MFG. COMPANY
AURORA, ILLINOIS

Cable Address
"Richwilco Aurora"

Canadian Factory
London, Ontario

BRANCH OFFICES

New York City, 85 Walker Street
Chicago, 166-168 West Lake Street
Philadelphia, 507 Arch Street
Boston, 124-126 Pearl Street
Cleveland, 459 Hippodrome Annex
Kanas City, 206 Reliance Bldg.
Cincinnati, 512 Provident Bank Bldg.
St. Louis, 2006 Locust Street

Indianapolis, 1939 N. Meridian Street
Minneapolis, 321 Plymouth Bldg.
Los Angeles, 500-501 Hibernian Bldg.
San Francisco, 626 Underwood Bldg.
Omaha, 202-203 City National Bank
Seattle, Wash., 1214 Hoge Bldg.
New Orleans, 616 Hibernia Bldg.
Detroit, 705 Donovan Bldg.

Richards-Wilcox Canadian Co., Ltd., London, Ont., Winnipeg, Montreal.

Products

Air-Way Multifold Window Hardware, Garage Door Equipment, Vanishing House Door Hardware, Garage Door Bolts, locks and floor guides, Builders Brackets and Hardware Specialties. For Garage Hardware see pages 242-243.

Where Used

The Air-Way Multifold Window Hardware is not only desirable for the sun parlor, sleeping porch, bed room and dining room, but for every room in the house; kitchen, living room or sewing room. This equipment is ideal not only for home, but for use in hotels, hospitals, sanatariums, club houses, dance halls and pavilions.

Special Features

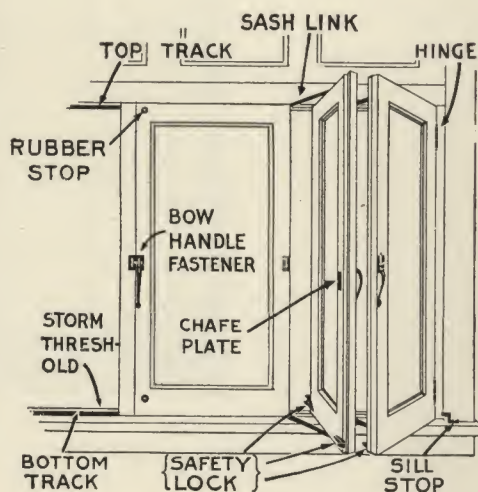
Multifold windows operating on "Air-Way" Window Hardware open inside and do not interfere with screens which may be applied to "Air-Way" equipped windows



An Air-Way equipped porch gives perfect control of ventilation at all times.

in the same manner as to ordinary windows operating vertically. Wind and draft will not blow sash equipped with "Air-Way" hardware, as they stand immovable in any position, open or closed, without locks or holders.

"Air-Way" Window Hardware gives opportunity to throw open the entire window frame; or one sash at any particular point in the string of sash or any number of sash desired. The windows may be constructed with stationary mullion, or moving split mullion, part of the sash moving to the right and part to the left; or they may be arranged to move all in one direction if openings are not too large. When wide open the sash fold together at an angle against the casing at the edge of the window, leaving partially all of the window opening clear of obstruction.



Air-Way is furnished in complete units with hardware fitted to either steel or wood sash and assembled in frames ready to set in openings. Hardware is also furnished for assembly on the job if desired.

Furnished in Complete Sets

This hardware is furnished in complete sets for series of sash from 2-10 in an opening. In the larger sized openings, where four or more sash are used, it is generally advisable to slide the sash to both sides of the opening.

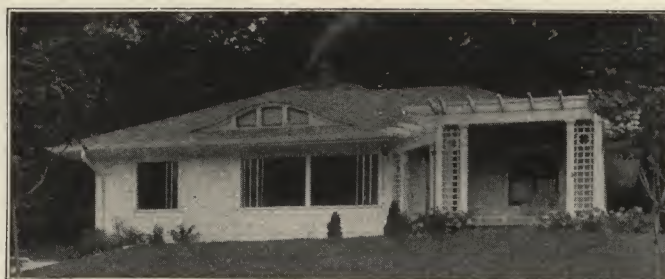
For instance in a ten sash installation five of the sash will fold back to each side of the opening. The maximum width of a ten sash opening is 16'6" wide.

Service

The Richards Wilcox

Manufacturing Company will furnish to the mill making the sash, a set of blueprints, showing exactly how they should be constructed. They also pack with each set of hardware, very complete and specific instructions showing how to properly install this hardware.

A special catalog giving detailed information has been prepared and will be sent to anyone writing for a copy.



Air-Way may be applied not only to sun parlors and sleeping porches, but to any room in the home.



For further details and literature, write to:

RICHARDS-WILCOX MFG. COMPANY, Aurora, Illinois

THE INVISIBLE SASH PULLEY

Made by

VELGUTH METAL PARTS, Inc.

Mfgs. Stampings, Dies and Tools, 416 Fourth St., Milwaukee, Wis.

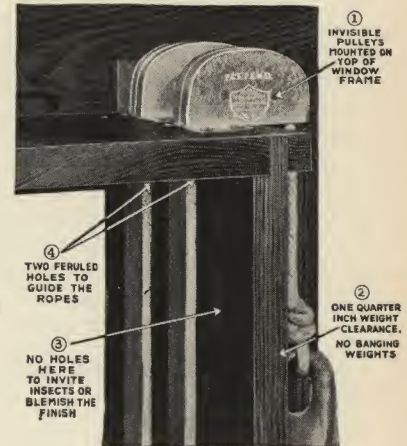
**No Cut Cords—Out of Sight—Dust-Proof—No Jamming or Banging Weights—
Absolutely Trouble-Proof—Outlasts the Building**

Usually it's the small details of equipment that determine the satisfaction—or lack of it—afforded by a building. One badly functioning sash pulley will wreck that satisfaction. There are four to the ordinary window, so multiply your windows by four and you'll have the sum-total of your possible annoyance from that source.

With the Invisible Pulleys installed the large holes through which bugs and dirt enter the house are eliminated. There'll be no more dirty curtains from this cause, no knuckles bruised on pulleys while washing the frame, no ropes off the wheels, no cords cut, no stuck or noisy weights, no rust or corrosion, no breaks in the weather stripping, no fanning of fire by drafts from large pulley openings, no maintenance cost, no worries whatever after once installed. The only pulley allowing Tailored Frames in appearance.

Installation Cost Cut in Half

A glance at the detail drawing at the bottom of the page will show you how easy it is to install the Invisible Pulley. It requires no recessing or fitting, no long, double gauge cord and pulley groove, and the wide channel for the clearance of the old type of pulley is *completely* eliminated from window sash. Merely bore two small holes in the top of the frame and you avoid entirely all the costly work necessary for the old type of pulley.



The Invisible Sash Pulley is mounted ON TOP of the frame and therefore is completely hidden by the finishing strips. Because of its rustless, wear-forever construction there's no occasion to gain access to it, but this easily can be done by removing the top finish. It permits free-swinging weights to lift the windows directly from above and is installed easily and quickly on all types of windows.

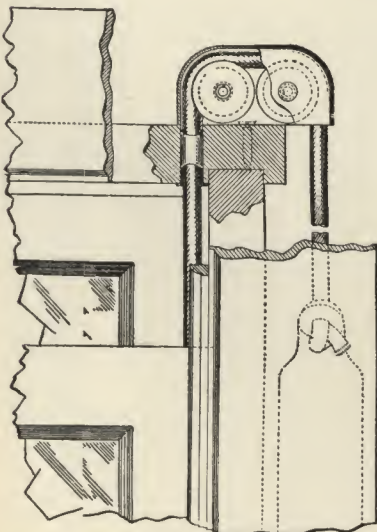
Specified By Architects Everywhere

Account of Beautifying the Window Frames

Because of its ease of installation, contractors welcome the specification of the Invisible Sash Pulley needing only the boring of two small holes and the driving of four shingle nails. It is easily threaded, requiring no "lead needle" and accommodates all sizes of sash cord or chain. Mouse supplied if desired.

Mills are finding it surprisingly profitable to stock Invisible-equipped frames and they report competition decidedly easy to meet with this ultra-modern pulley.

Invisible Sash Pulleys are solidly built of lead-coated terne plate. They have two $\frac{3}{4}$ -inch pulley wheels firmly mounted in the pressed steel sides and revolving on $\frac{1}{4}$ -inch shafts, being practically indestructible. Furnished complete with ferrules. We gladly will furnish a sample to contractors, architects or dealers who are unable to find Invisible Sash Pulleys in their home markets. Specify this pulley or you will get one of a cheaper make.



For further details and literature, write to:

VELGUTH METAL PARTS, Inc.

416 Fourth St.
MILWAUKEE, WIS.

RECEIVADOR—The Automatic Servant

Made by

RECEIVADOR SALES COMPANY

418-419 Ashton Building, GRAND RAPIDS, MICHIGAN

The Receivador

Description—The Receivador is a metal parcel receiver of two or more compartments installed in the exterior or interior walls or doors of a building. Its purpose is to receive and safeguard delivered packages in the absence or pre-occupation of the owner. Each compartment has two doors, one inside and one out, provided with a non-pickable lock and operated by the simple turn of a thumb bolt. An interlocking device makes it impossible to open both doors at the same time, thereby preventing ingress through the Receivador.

Operation—The delivery man inserts the package and turns the thumb bolt which automatically engages the interlock and prevents outside door being again opened until package is removed by way of the inside door. When the inside door is closed and the thumb bolt turned, the outside lock is automatically released, permitting door to be opened. The design of the lock makes its action reliable and unailing.

In apartments, where deliveries are made from a central station, we can furnish Receivadors with Master Key Locks, permitting service man to make deliveries at will.

The installation of the Receivador cabinet in no way interferes with the normal operation of the door.

Construction

The standard Receivador consists of two compartments, upper and lower. The lower compartment as shown below, contains a regulation suit box, shoe box and corset box with ample room for other small parcels.

The cabinet is made of sheet steel and possesses the utmost strength and rigidity. Its parts are electrically



welded; no bolts or screws are used in its assembly. The doors are built up of two sheets of steel electrically welded together with a sheet of insulating material between. This insulation is effective against extreme heat and cold.

Sizes

For special requirements we furnish single compartment cabinets, or the number of compartments may be increased to three or more arranged either horizontally or vertically. The rigidity of multiple compartments is accomplished by welding and bolting the units together.

Where Used

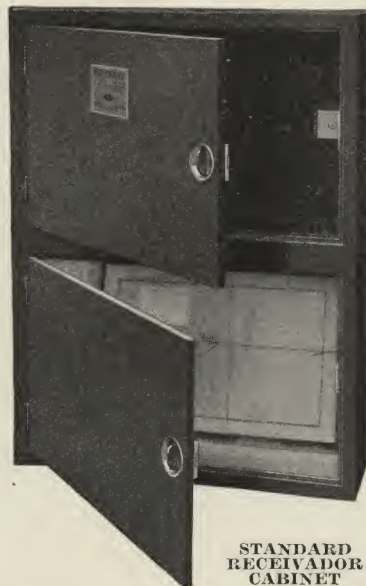
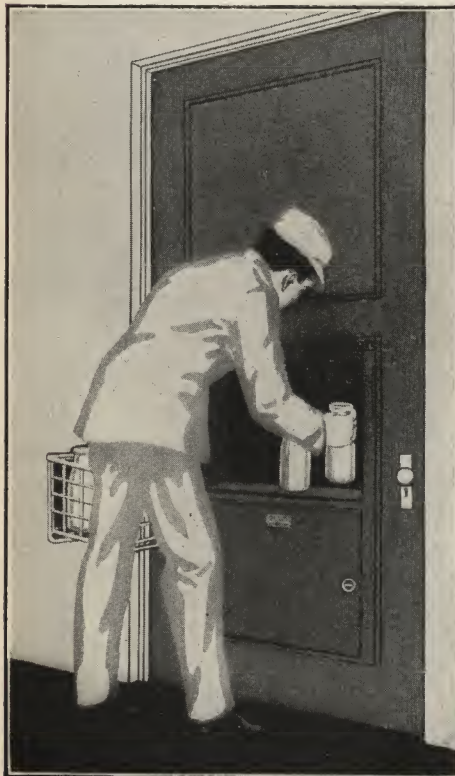
The Receivador is used in service entrance doors or walls of residences and clubs, also in corridor doors or walls of apartments, clubs, etc. It is extensively specified by leading architects for the better class of homes and apartments.

Specifications

It is suggested that the following be written into the general specifications.

Receivador—Furnish and install complete and finish according to architect's directions double Steel Receivadors, manufactured by the RECEIVADOR SALES COMPANY, Grand Rapids, Mich., as shown on the plans. Where Receivadors are to be installed in a door, the door must be furnished by the contractor with the proper opening for the Receivador Cabinet.

Where Receivadors are to be installed in a wall, frames and trim must be furnished by the contractor. For door installations, stiles must be 5 in. wide. For wall installations, allow 1/4 to 1/2-in. clearance in the rough opening.



STANDARD
RECEIVADOR
CABINET

| Double compartment units | | | Single compartment units | | | Size door ft. in. |
|--------------------------|-----------|----------------------|--------------------------|-----------|----------------------|----------------------|
| No. | Wt., lb.* | Dim., in. H. x W. | No. | Wt., lb.* | Dim., in. H. x W. | |
| 5 | 80 | 32x20 | 1 | 45 | 16x20 | 2 6 |
| 6 | 84 | 32x22 | 2 | 47 | 16x22 | 2 8 |
| 7 | 84 | 32x24 | 3 | 48 | 16x24 | 2 10 |
| 8 | 94 | 32x26 | 4 | 50 | 16x26 | 3 0 |

All cabinets 6 1/4 in. deep inside, 7 1/4 in. over all. Any number of compartments can be used by adding single units. *Crated.



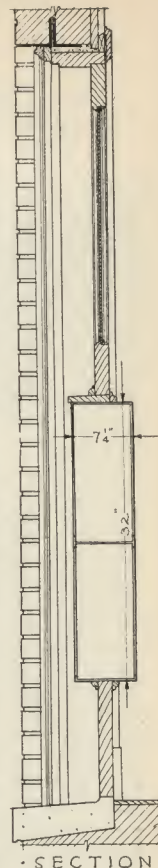
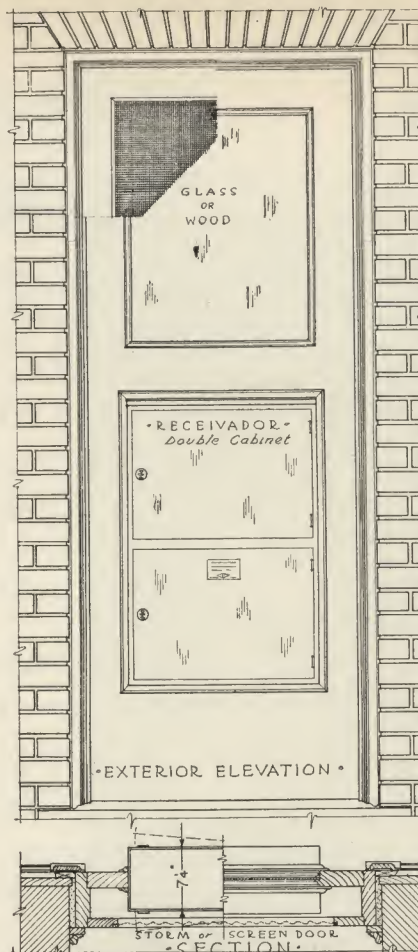
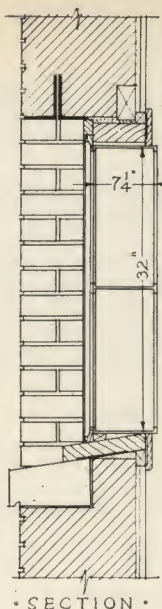
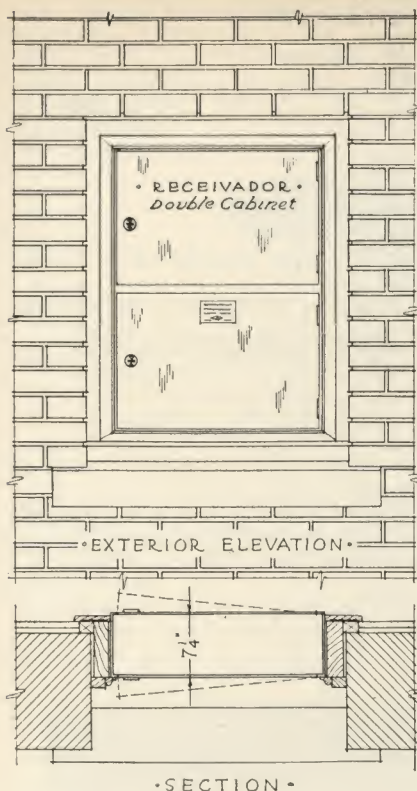
Articles Are Received Through Outside Door and Safeguarded Until Removed Through Inside Door



For further details and literature, write to:

RECEIVADOR SALES CO., Grand Rapids, Mich.

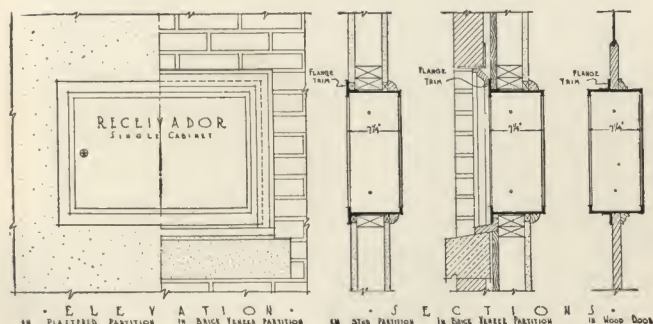
RECEIVADOR—The Automatic Servant (Cont'd)



NOTES:
FRAMES TO BE MADE $\frac{1}{2}$ INCH WIDER AND $\frac{1}{4}$ INCH HIGHER
THAN RECEIVADOR DIMENSIONS...
STANDARD FRAMES MAY BE USED...
FRAMES MUST BE SET SQUARE...

Double Receivador Cabinet in Wall of Brick Building

Double Receivador Cabinet Installed in Wood Door



Flange Trim for Receivadors

Flange trim is electrically welded to the Receivador, off center for installing in a door, or flush for wall installation.

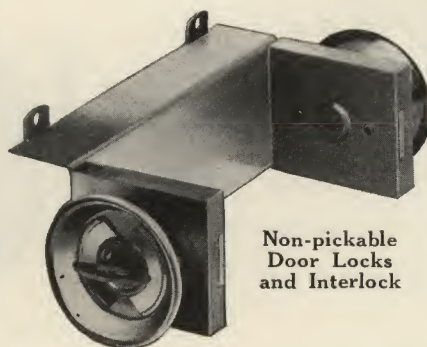
For corridor wall installation leave proper opening and, after plastering, insert Receivador from corridor side, thus saving carpenter's time and insuring a neat, tight job. Flange trim can be supplied with all Receivadors, whether single or multiple units, at small extra cost.

Finish

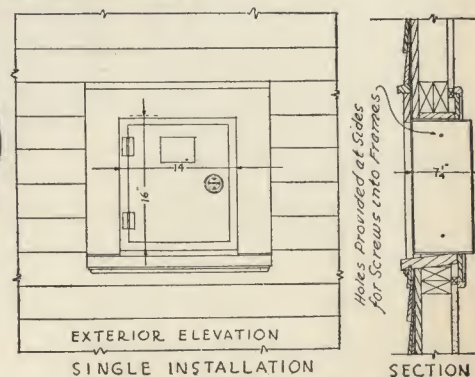
All cabinets finished with one coat best non-rust, baked olive green enamel. Special grained finishes in mahogany, walnut and quartered oak at slight extra cost.

Prominent Users

Wellington Arms Apartments, Chicago, Ill.
Westbrook Apartments, Buffalo, N. Y.
Franchette Apartments, New York, N. Y.
Shorecrest Apartments, Milwaukee, Wis.
Davies Apartments, Cincinnati, Ohio
Flamingo Hotel, Chicago, Ill.
Loutellus Apartments, Pittsburgh, Pa.
Sewell Apartments, Miami, Fla.
Fred Boylon, Grand Rapids, Mich.
C. E. Reichle & Co., Detroit, Mich.



Non-pickable
Door Locks
and Interlock



Receivador Junior Installed in Wall

Note: Receivador Junior fits between studding 16 in. on centers. Double installation is similar to installation of the standard type Receivador.



For further details and literature, write to:

RECEIVADOR SALES CO., Grand Rapids, Mich.

Cardinal Toggery Racks

Made by

THE CHAS. FISCHER SPRING CO.
238 Kent Ave., Brooklyn, N. Y.

Order
Convenience
Economy

Every Door
an Extra
Closet



Product

Cardinal Toggery Rack for the inside of a closet door to hold hats, shoes, scarfs, neckties, umbrellas, etc., in place—in order—with economy of space.

Where Used

In homes, new or old. An aid to selling a new house; a means of making an old house more livable. In schools, clubs, hotels—always a help to efficiency and economy.

Advantages

Utilizes space on back of every closet door, subtracting practically nothing from depth of closet. Hats and caps hung up easily accessible. Keeps shoes off the floor—makes closet cleaning easier. Ideal for the youngsters forming orderly habits and a delight for any man or woman.

Construction

All heavy gauge metal, beautifully nickered or enamelled, strong, last a life time, guaranteed satisfactory or money back.

Sizes

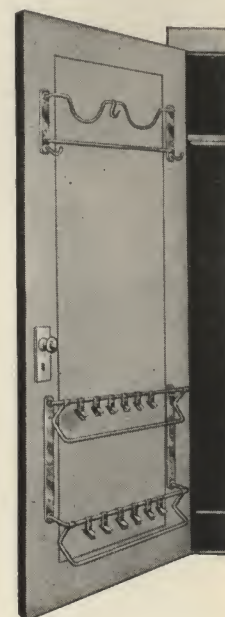
Standard Set: Width, 22 inches, includes top rack for two hats, neckties, scarfs, etc., and bottom racks for six pairs of shoes. Single units may be purchased separately. Special widths, 16" and 28".

Simple Installation

Attached to any door in 10 minutes. Full instructions, screws, etc., included.

Low Prices

Cost is surprisingly low, considering utility of the Cardinal Toggery Rack and its strong appeal in new buildings or in remodelling. Write to the makers for prices and quantity discounts.



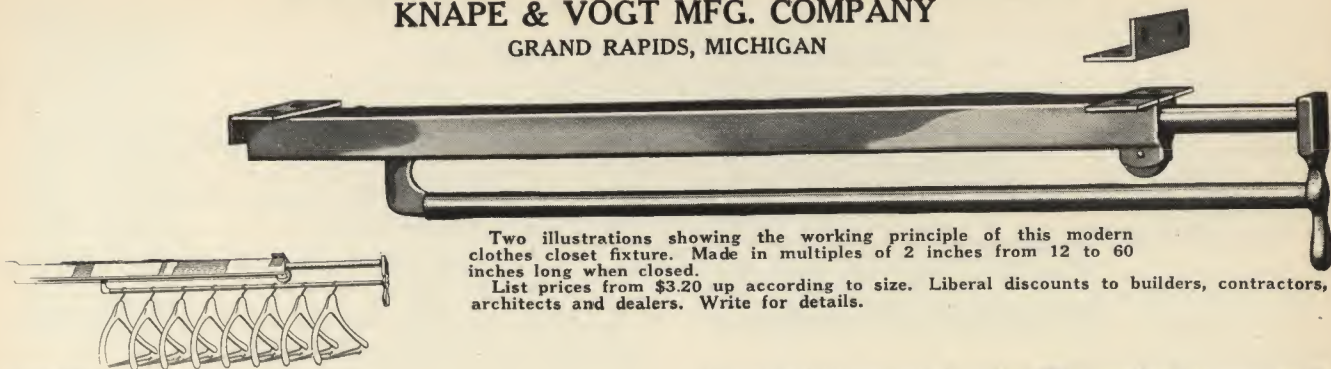
For further details and
literature, write to:

THE CHAS. FISCHER SPRING CO.

238 Kent Ave.
Brooklyn, N. Y.

THE K-V CLOTHES CLOSET FIXTURE

Made by
KNAPE & VOGT MFG. COMPANY
GRAND RAPIDS, MICHIGAN



Two illustrations showing the working principle of this modern clothes closet fixture. Made in multiples of 2 inches from 12 to 60 inches long when closed.

List prices from \$3.20 up according to size. Liberal discounts to builders, contractors, architects and dealers. Write for details.

Product

A garment extension carrier which doubles the clothes hanging capacity of closets and permits convenient, neat, unwrinkled storage of clothing when not in use.

Where Used

K-V Fixtures can be used to advantage in practically any clothes closet. They are now widely employed in private residences, hotels, churches, clubs, schools, lodges, offices, factories and in locker and cloak rooms of all kinds.



The K-V Fixture makes all clothing conveniently and quickly available. It is a selling feature in new homes that means quicker sales and faster turnover.

Advantages

Because K-V fixtures double clothes closet capacity, houses can be built smaller without reducing garment hanging space or the same dimensions can be retained and the space saved can be devoted to larger living rooms. Clothing hangs in a neat orderly row, unwrinkled, and easily accessible. The fixture slides in and out of the closet. Moths are discouraged. Clothing can be selected in the light of the room. Builders and Realtors find that K-V equipped closets actually save money in construction costs by saving unnecessary closet space.

Construction

The entire fixture is built of full nickered steel. There

is nothing to get out of order. Fixtures last as long as the building. The carrier rod operates smoothly and noiselessly within the support on which it travels at a mere touch of the finger. Necessary screws and brackets for installing are furnished.

Sizes

K-V Fixtures are made in multiples of 2 inches from 12 to 60 inches long when closed. Special lengths can be had, to order, to fit any size closet.

How to Order

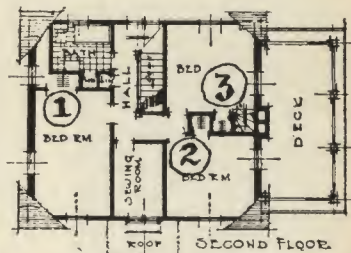
Simply send us the measurement in inches of the depth of closet, locker or compartment to be fitted with the K-V Fixture.

Literature and Plans

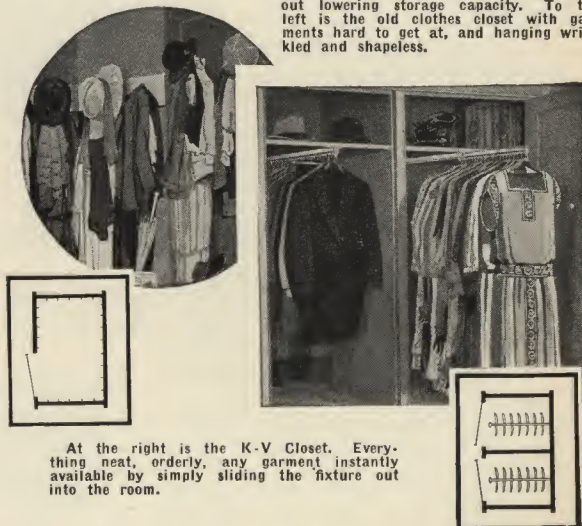
We will gladly send, without obligation, interesting literature completely describing K-V Fixtures and showing installations in modern clothes closets. Special installations will be worked out upon request.

Easily Installed

A K-V Fixture can be installed in any new or old closet in a few minutes with a screw driver. It can be attached either to shelf bottom and door casing or rear wall and door casing. The shelf to which the fixture is attached should be fitted from the casing.



Figures 1, 2 and 3 show K-V Fixtures installed in modern space-saving clothes closets. The builder of such a home can make a substantial reduction in all-over dimensions with consequent saving, without lowering storage capacity. To the left is the old clothes closet with garments hard to get at, and hanging wrinkled and shapeless.



At the right is the K-V Closet. Everything neat, orderly, any garment instantly available by simply sliding the fixture out into the room.



For further details and literature write to:

KNAPE & VOGT MFG. CO., Grand Rapids, Mich.

Bommer Spring Hinges

Made By
BOMMER SPRING HINGE COMPANY
BROOKLYN, N. Y.

Gold Medal Awarded,
Sesquicentennial
Exposition,
Philadelphia, Pa.
1926

ESTABLISHED 1876

Products

Spring Hinges for all kinds of doors also
Pivots; Strikes and Latches for Lavatory
and Hospital Doors.

Quality and Prices

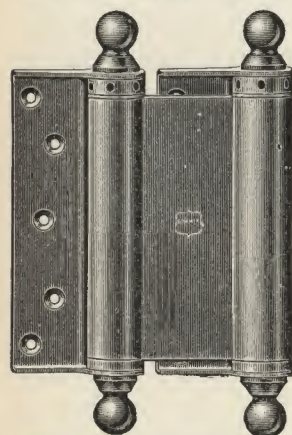
Standard for 50 years, and kept up-to-date retaining
superiority over all others.

Prices are guaranteed to be no higher than those for
goods of corresponding type.

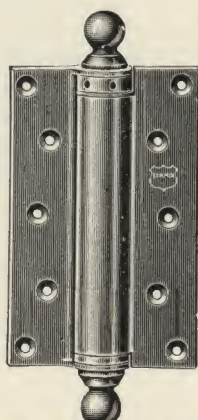
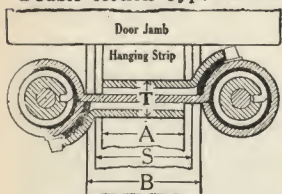
Bommer Standard Spring Butt Hinges

Bommer Standard spring butt hinges require a hanging
strip for fastening them to the door casing. One flange is
mortised into the hanging strip and the other into the
door, which gives a uniform appearance and secure fastening.

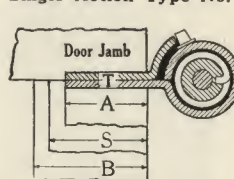
They are made of wrought steel, bronze and brass, in
all finishes. The bearing surfaces are of different hardness
in order to reduce friction. The spring barrels and their
connecting plate are integral and exceptionally strong and
of uniform thickness. The springs are of large diameter
and unusual length, made of the best oil tempered steel
wire, have great resilience and power and never go lame.
The pintle and flange are interlocked, preventing the ball
tips from working loose.



Double Action Type No. 29



Single Action Type No. 0



Details of Bommer Standard Spring Butt Hinges

| Size of hinge | T Type No. 29 thickness of the 3 leaves | T Type No. 0 thickness of the 2 leaves | A Minimum thickness of door | B Wood door maximum thickness | S Metal door maximum thickness | Width of door | Weight of door, lbs. | Hanging strip depth |
|---------------|---|--|-----------------------------|-------------------------------|--------------------------------|---------------|----------------------|---------------------|
| 3" | 7/16" | 11/16" | 3/4" | 1" | 7/8" | 2' 2" | 30 | 1 1/4" |
| 4" | 7/16" | 11/16" | 3/4" | 1 1/4" | 1 1/8" | 2' 4" | 42 | 1 1/4" |
| 5" | 7/16" | 11/16" | 1 1/2" | 1 1/2" | 1 3/8" | 2' 6" | 56 | 1 1/4" |
| 6" | 7/16" | 11/16" | 1 3/4" | 1 3/4" | 1 1/2" | 2' 8" | 72 | 1 1/4" |
| 7" | 7/16" | 11/16" | 1 7/8" | 2" | 1 3/4" | 2' 9" | 90 | 1 1/4" |
| 8" | 7/16" | 11/16" | 2" | 2 1/4" | 2" | 2' 10" | 110 | 1 1/4" |
| 10" | 7/16" | 11/16" | 2 1/4" | 2 1/2" | 2 1/8" | 3' 0" | 150 | 1 1/4" |
| 12" | 7/16" | 11/16" | 2 1/2" | 3" | 2 3/8" | 3' 2" | 190 | 1 1/4" |

Always use the largest size hinge the thickness of door will permit.

TRADE MARK



Reg. U. S. Pat.
Office

Specifications and Catalogues

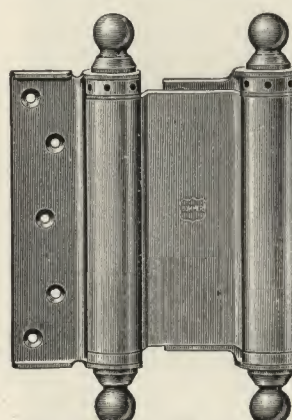
In specifying these products, use the word
"Bommer" and in addition thereto, if possible,
the catalogue number of the article and finish.
Hardware dealers and lock manufacturers can
include them in their contracts.

Complete catalogue of the Bommer Spring Hinge
Company's line forwarded on application. For projects
requiring special spring hinges, details of construction
are solicited.

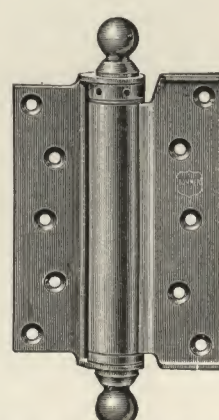
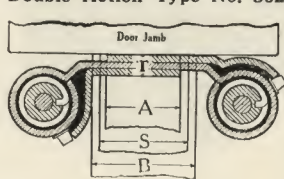
Bommer Ever Ready Spring Hinges

Ever Ready double action spring hinges do not require a
hanging strip. They are fastened to the surface of the door
casing, the entire thickness of hinge being mortised into the
door.

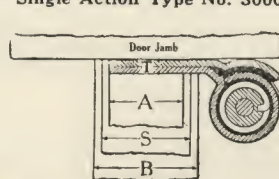
They are made of wrought steel, bronze and brass, in all
finishes. The bearing surfaces are of different hardness in
order to reduce friction. The spring barrels and their con-
necting plate are integral and exceptionally strong and of
uniform thickness. The springs are of large diameter and
unusual length, made of the best oil tempered steel wire,
have great resilience and power and never go lame. The
pintle and flange are interlocked, which prevents the ball
tips from working loose.



Double Action Type No. 3029



Single Action Type No. 3000



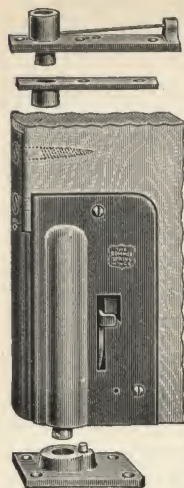
Details of Ever Ready Spring Hinges

| Size of hinge | T Type 3029 thickness of the 3 leaves | T Type 3000 thickness of the 2 leaves | A Minimum thickness of door | B Wood door maximum thickness | S Metal door maximum thickness | Width of door | Weight of door, lbs. |
|---------------|---------------------------------------|---------------------------------------|-----------------------------|-------------------------------|--------------------------------|---------------|----------------------|
| 3" | 15/16" | 11/16" | 3/4" | 1" | 7/8" | 2' 2" | 30 |
| 4" | 1 1/4" | 1 1/8" | 7/8" | 1 1/4" | 1 1/8" | 2' 4" | 42 |
| 5" | 1 1/2" | 1 1/4" | 1 1/8" | 1 1/2" | 1 3/8" | 2' 6" | 56 |
| 6" | 1 5/8" | 1 3/4" | 1 1/4" | 1 5/8" | 1 1/2" | 2' 8" | 72 |
| 7" | 1 7/8" | 1 7/8" | 1 3/8" | 2" | 1 3/4" | 2' 9" | 90 |
| 8" | 2" | 2" | 1 1/2" | 2 1/4" | 2" | 2' 10" | 110 |

When hinges larger than the above are required, use Bommer standard spring
butt hinges with a hanging strip.

Always use the largest size hinge the thickness of door will permit.

FOR SALE BY DEALERS IN BUILDERS HARDWARE



Vertical Spring Pivot, Type 20

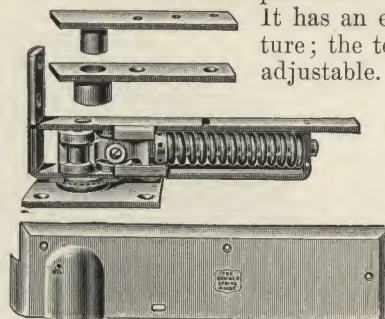
Bommer Vertical Spring Pivot with Release Feature

Permits door to stand open at any angle by pressing down either side pedal with the foot. The spring tension automatically re-engages itself when door is closed. The floor plate is fastened to the floor surface, obviating the need of cutting holes in the floor. The weight of the door is carried on ball bearings located in the upper part of the pivot frame away from water and dust. The top pivot has a spring actuated plunger which permits the door to be taken down quickly without removing the screws. For tile or concrete floors a special right angle floor plate can be furnished instead of the floor plate shown in the illustration.

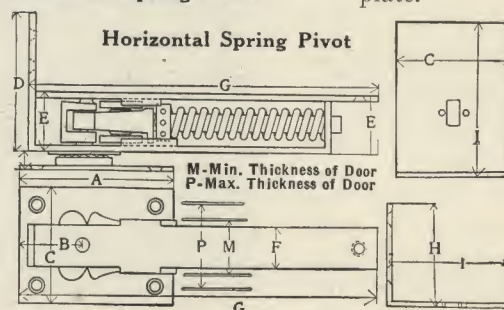
**Bommer Horizontal Spring Pivot with Holdback Feature**

Will hold the door open when swung back beyond 90°. It has an efficient alignment feature; the tension of the spring is adjustable. The floor plate is

screwed to the floor surface, obviating the need of cutting holes in the floor. The weight of the door is carried on ball bearings. All moving parts can be lubricated through a hole in the side plate.



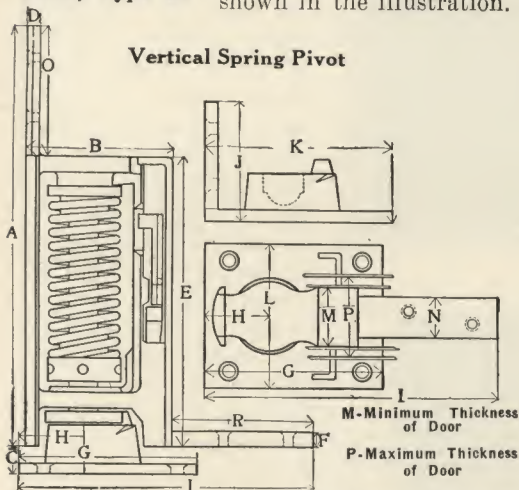
Horizontal Spring Pivot



Details of Horizontal Spring Pivot, Type No. 18

Dimensions in inches

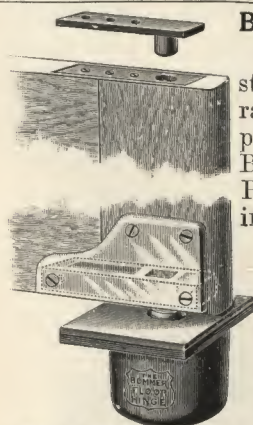
| For Doors | A | B | C | D | E | F | G | H | I | M | P | Series No. |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|
| 1 1/8 to 1 3/4 | 3 1/2 | 1 1/2 | 2 3/4 | 3 3/4 | 1 7/8 | 1 | 8 3/4 | 2 1/8 | 3 5/8 | 1 1/8 | 1 3/4 | 18 |
| 2 to 2 1/2 | 5 1/8 | 2 1/4 | 4 | 4 7/8 | 2 1/8 | 1 1/4 | 12 | 2 5/8 | 5 3/8 | 2 | 2 1/2 | 19 |



Details Vertical Spring Pivot, Type No. 20

Dimensions in inches

| For doors | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | R |
|----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 1/8 to 1 1/2 | 7 7/8 | 2 3/4 | 1 1/2 | 5 1/8 | 5 1/8 | 3 1/4 | 1 1/4 | 5 3/8 | 2 1/4 | 3 1/2 | 2 1/4 | 1 1/8 | 1 1/8 | 3/4 | 2 1/8 | 1 1/2 | 2 5/8 |
| 1 1/2 to 2 | 8 | 3 | 1 1/2 | 5 1/8 | 5 1/8 | 3 3/8 | 1 1/4 | 6 1/4 | 2 1/2 | 4 | 3 1/8 | 1 1/2 | 1 1/2 | 1 | 2 5/8 | 2 | 3 1/8 |
| 1 3/4 to 2 1/4 | 10 1/8 | 4 1/8 | 1 1/2 | 5 7/8 | 5 7/8 | 4 3/8 | 1 1/4 | 7 1/8 | 3 | 4 3/4 | 3 3/4 | 1 3/4 | 1 3/4 | 1 1/8 | 3 | 2 3/4 | 3 3/4 |



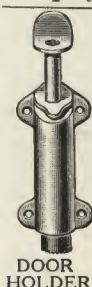
Floor Mortise Spring Pivot

Bommer Mortise Spring Pivots

Support weight of door on tool-steel ball bearings set upon a raised center post. Bearings are protected from water and dirt. Best oil tempered springs are used. Pivots are furnished either with invisible socket bar with adjustable top pivot, or side plates. Tension of spring is adjustable. Pivots are double acting, but by using stop bead will work single acting.

Cast Iron Box
Suitable for setting all sizes, of floor mortise pivots into tile or cement floors.

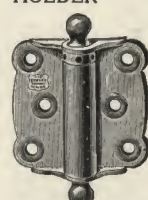
| Thickness of door | Use size | Dimensions of top plate | Depth of cup | Distance from center of spindle to door casing |
|-------------------|----------|-------------------------|--------------|--|
| 7/8" to 1 1/2" | 2 | 3 3/4" x 5 1/8" | 3 3/8" | 1 5/8" |
| 1 3/8" to 2" | 4 | 3 3/8" x 5 5/8" | 3 1/2" | 1 3/4" |
| 2" to 2 1/2" | 6 | 4 1/8" x 6 1/8" | 3 3/4" | 2" |
| 2 1/2" to 3 1/2" | 8 | 4 1/2" x 6 1/2" | 3 3/4" | 2" |



DOOR HOLDER

Bommer Door Holder

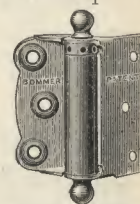
Is the best, easiest to apply, and most effective device for holding open doors of public or office buildings and residences. A light pressure of the foot will either throw or retract the bolt. The rubber tip prevents marring of floor. Will reach 1 1/2 in. from door to floor. Furnished in wrought steel or bronze metal, in all finishes.



Type No. 2100

Has adjustable tension. The coil-spring is entirely enclosed and is made of best oil-tempered steel wire. This hinge is of excellent workmanship and finish, and is made of heavy wrought steel or brass metal. The tension of the spring can be regulated after the hinge is applied to the door.

Type No. 2200, one leaf is fastened to the casing, the other is fastened to the surface of the door.



Type No. 2200

Bommer Screen Door Hinges

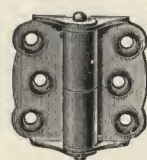
Type No. 2100 and 2200

Has adjustable tension. The coil-spring is entirely enclosed and is made of best oil-tempered steel wire. This hinge is of excellent workmanship and finish, and is made of heavy wrought steel or brass metal. The tension of the spring can be regulated after the hinge is applied to the door.

Bommer Screen Door Hinge

Type No. 900—Wrought Steel

Has two bearing joints, no matter which end of the hinge is upper-most, thereby greatly increasing its strength and durability. Has enclosed oil-tempered spiral coil-spring. A handsome, well finished and thoroughly satisfactory article.



Type No. 900

FOR SALE BY DEALERS IN BUILDERS HARDWARE

McKINNEY HINGES, GARAGE HARDWARE

Made by McKinney Manufacturing Co., Pittsburgh, Pa.

McKinney Hinges

For many years, a hinge was only a hinge! McKinney has raised the making and finishing of hinges to an art. From the simplest and least expensive hinge to the most costly, the evidences of accuracy and careful craftsmanship are evident.

Sizes

Every possible size hinge necessary to equip a house and garage is made by McKinney, and most of them in a wide choice of finishes and styles. From cupboard to heavy front door, there are McKinney Hinges available.

Styles

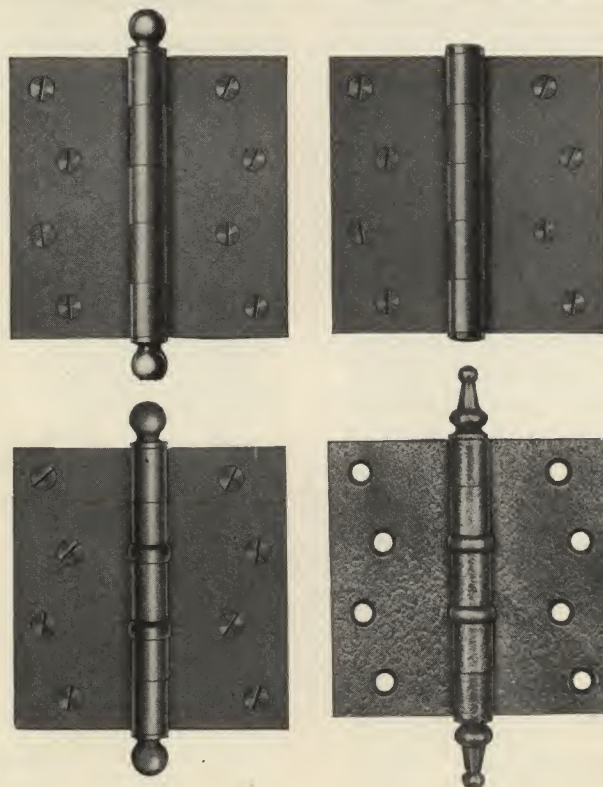
The study of hinges reveals types and varieties of hinges usually quite unknown to the layman. Four widely differing styles are illustrated here. Particular emphasis should be placed on the ball bearing and anti-friction construction shown at the lower left. For doors of appreciable weight these McKinney types are of unmatched value.



For more decorative use, the Steeple Tip design shown at the lower right is appropriate.

Finishes

McKinney has developed the science of finishing hinges to a point never before equalled. In all, there are more than forty different finishes available, among the most used being Brass, dull, oxidized, polished or sanded; Bronze; Copper; Nickel, dull, natural or plated; Old Iron. Where hinges are to be subjected to severe atmospheric conditions, it is best to choose McKinney Hinges which have been given the special McKinney rust-proofing process.



Garage Hardware

McKinney has created garage hardware which is sold in complete sets for all types of garage doors. The same high standard of quality in McKinney Hinges is maintained throughout in McKinney Garage Sets.

For Garage Door
Lock
See Page 244



Garage Hardware Sets

No. 9023 (Left)
In addition to this 3-door around-the-corner set shown, there is a 4-door set for slightly larger entrances.

No. 9010 (Right)
McKinney Hardware

sets for sliding-folding entrances cover a wide range of requirements. In some sets the doors fold inside. There are sets for two, three, four and five-door entrances. Write for garage set booklet.



For further details and literature write to:

McKINNEY MANUFACTURING COMPANY

PITTSBURGH
PENNSYLVANIA

FORGED IRON HARDWARE, LANTERNS

Forged Iron Hardware

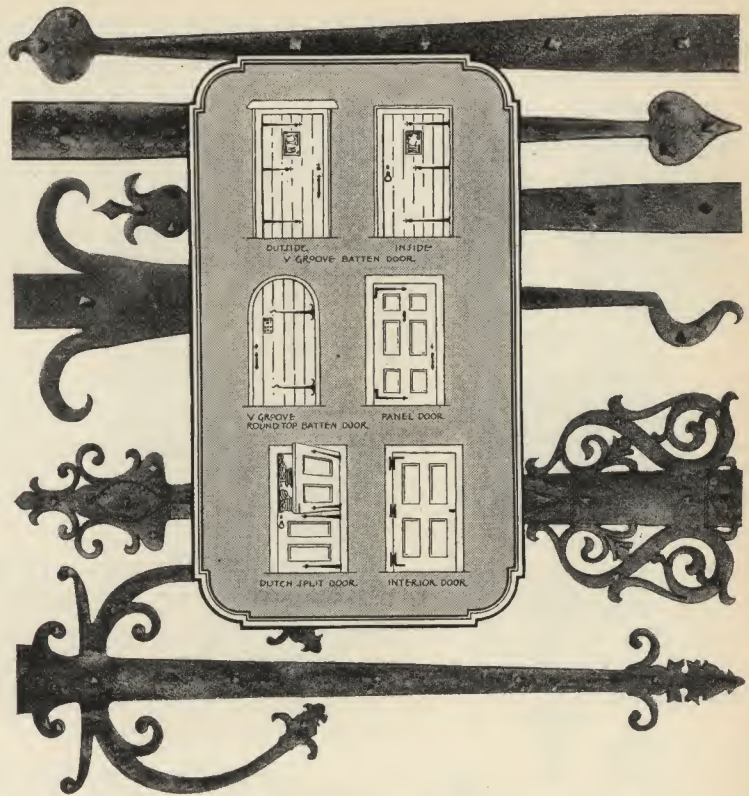
McKinney has brought genuine forged iron hardware to a point where it is now available for houses of most modest pretensions. The designs are authentic of the best creations of metal craftsmen of earlier centuries. They have caught the very spirit of the sturdy iron itself, and in the rugged texture, beaten and shaped, reflect artisanship of the highest order.

All Essential Pieces

Six master designs may be had. These are, from top to bottom of the accompanying illustration: Curly Lock, Heart, Tulip, Etruscan, Alhambra, Warwick. The entrance handle sets shown are in the same order from left to right. In addition to the pieces shown, there are H & L hinge plates, shutter dogs, cabinet latches and hinges, foot scrapers, knockers, mail boxes, chimney irons—everything to outfit a home complete from entrance gate to chimney.

Easily Available

McKinney Forged Iron Hardware is sold by leading builders' hardware dealers everywhere. Most of them carry a stock, for immediate delivery. If not, they can get any desired pieces quickly from McKinney Manufacturing Company.



Lanterns

Fabricated of forged iron and rust proofed. Complete with crackle glass, and either wall bracket or three-foot length of chain for over-head suspension. All sizes for all uses.



15102
BELFRY



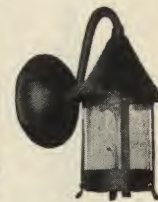
15103
NIGHTWATCH



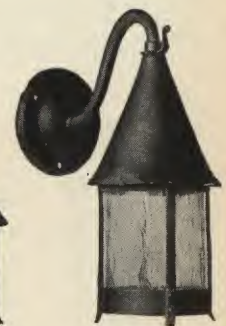
15100
SALEM



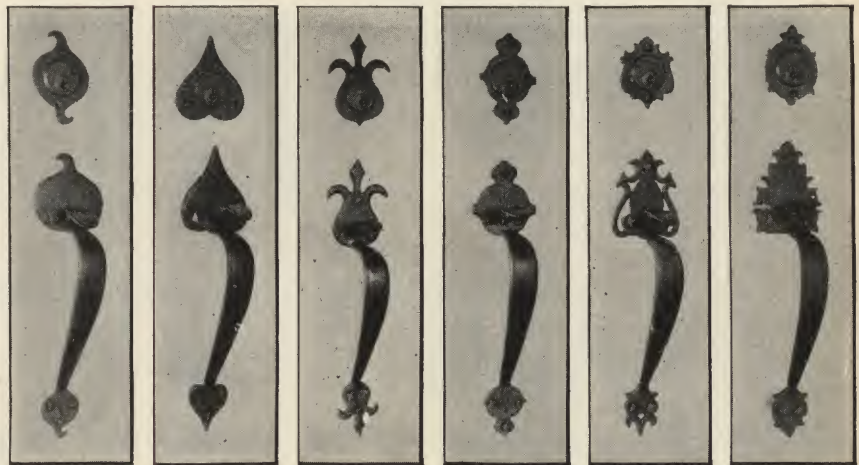
15101
WAYFARER



15104
WICKET



15105
CLOISTER



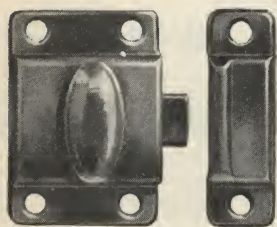
For further details and literature write to:

McKINNEY MANUFACTURING COMPANY

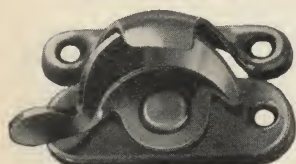
PITTSBURGH
PENNSYLVANIA

SHARON BUILDERS' HARDWARE

Manufactured by
SHARON HARDWARE MANUFACTURING CO.
SHARON, PA.



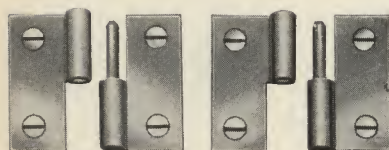
Cupboard Turns



Sash Locks



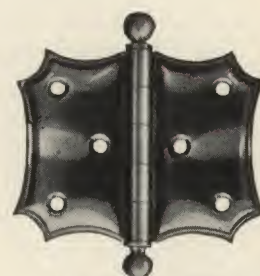
Surface Bolts



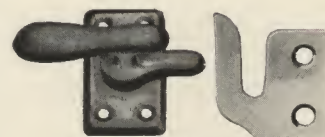
Screen Window Sets



Screen Window Hangers



Hinges and Butts



Casement Hardware



Base Knobs

Product

We manufacture a very attractive line of Small Trim Hardware in wrought brass and in steel, as well as a complete line of Garage Door Equipment.

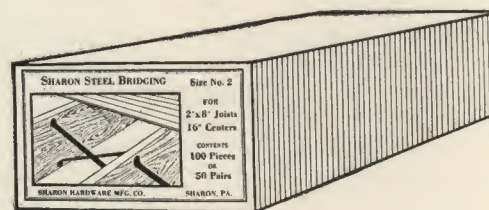
Finish

We pride ourselves on our plated finishes—they have the coloring and shading that will please the most fastidious Home Builder.

Quality

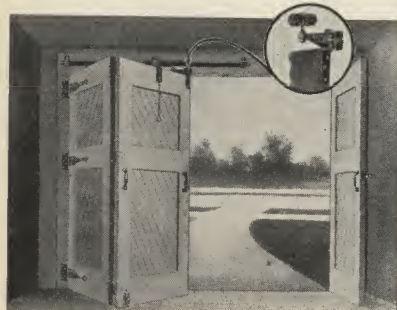
The workmanship and quality throughout of Sharon Hardware is equal to any—every piece is thoroughly inspected before packed. It makes its own impression on those who install it and those who use it.

Send for Our No. 14 Catalog

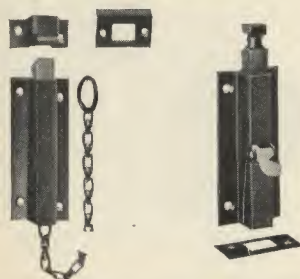


Steel Bridging

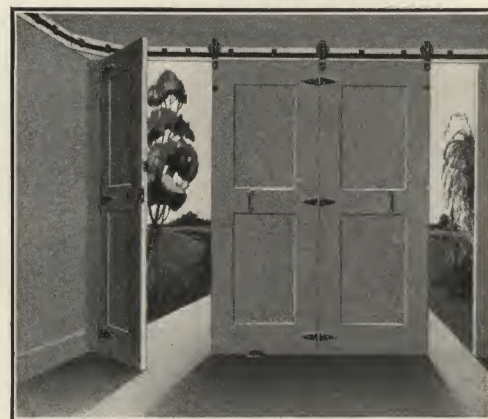
GARAGE DOOR EQUIPMENT THAT WILL MEET HOME BUILDER'S REQUIREMENTS



Folding Door Equipment



We have endeavored to manufacture and assemble Garage Door Equipment for use on the many styles of garages now being constructed and will be pleased to mail our catalog on request.



Around-the-Corner
Garage Door Equipment



For further details and literature, write to:

SHARON HARDWARE MANUFACTURING CO., Sharon, Pa.

Wrought Iron Hardware, Lanterns, Lighting Fixtures

Manufactured by
STANDARD IRON & WIRE WORKS
Chattanooga, Tennessee

Products:

This Company manufactures Lanterns and Lighting Fixtures, Bridge Lamps, Torches, Candlesticks, Door Hinge Straps, Latches, Knockers, Bell and Switch Plates, Flower Baskets, Fern and Bird Cage Stands, Console Tables, Andirons, Fire Sets and Screens, Smoking Stands, etc. all made of Wrought Iron, a few examples being illustrated on this page.

For Balcony and Porch Railings, etc., see page 289.

Construction:

All articles are made of genuine Hand Forged Wrought Iron, carefully finished and furnished complete with the necessary screws or nails for installing. All lanterns and lighting fixtures are completely wired ready for hanging.

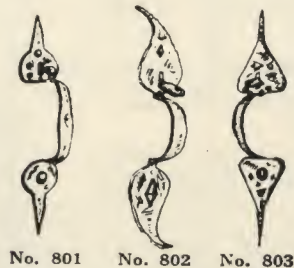
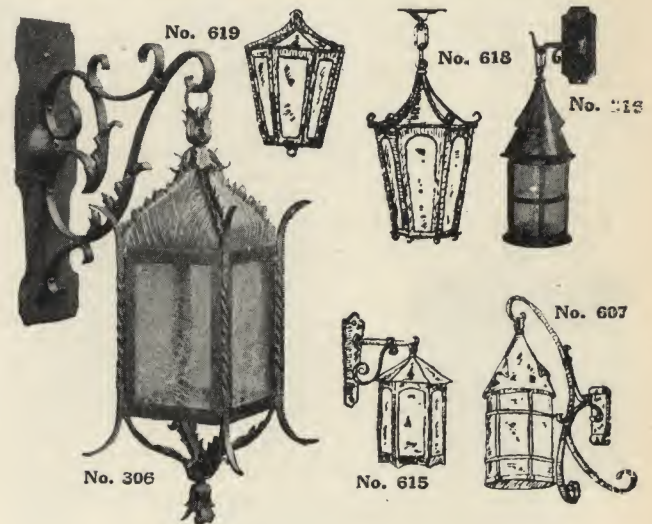
When furnishing Wrought Iron Hardware for doors, the same motif is used throughout for hinge straps, latch and knocker (see Figures 207, 205 and 201 which form a set).

Special Designs:

We are always glad to work out special designs in keeping with customer's suggestions, to give the finished article the individual touch so much desired when carrying out some particular decorative scheme.

Many of the houses shown in the Home Builders Catalog lend themselves to some of the products we manufacture, and the attractiveness of such homes will be greatly improved by their use. We will gladly quote on requirements. Ask for complete literature concerning any items interested in.

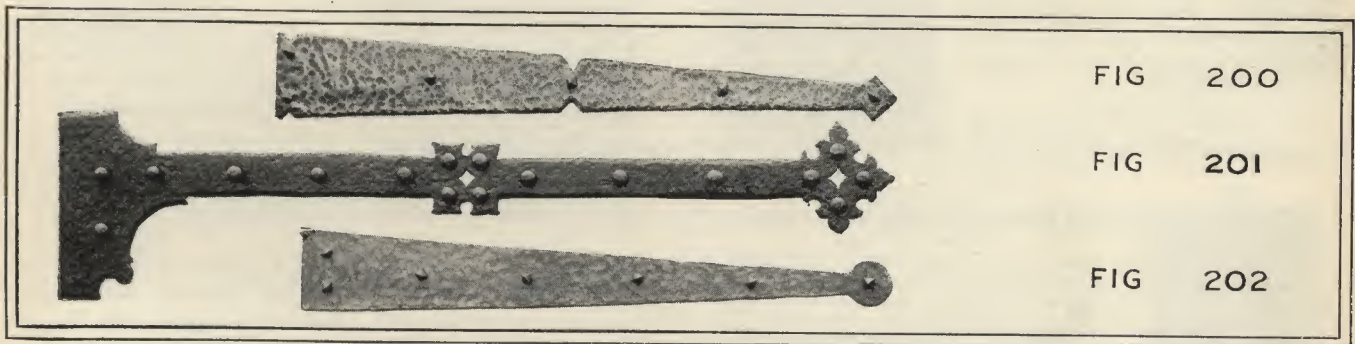
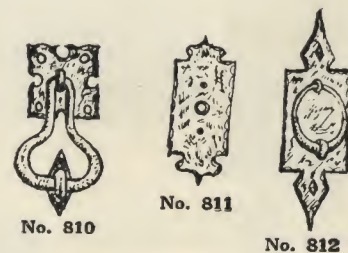
Some Types of Lanterns Suitable for Colonial, English, Spanish and Italian Styles of Architecture.



Latches



Knockers and Bell Plates



Some Examples of Wrought Iron Door Hinge Straps



For further details and literature, write to:

STANDARD IRON & WIRE WORKS, Chattanooga, Tenn.

HOME BUILDERS CATALOG

STANLEY HARDWARE

Made by

THE STANLEY WORKS
New Britain, Conn.

STANLEY



New York:
100 Lafayette St.
San Francisco, Cal.
Los Angeles, Cal.

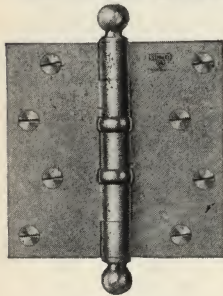
Chicago:
61-67 W. Kinzie St.
Seattle, Wash.

Products

Wrought Steel and Bronze Hardware, including Ball Bearing Butts and Hinges, Latches, Handles, Bolts, Storm Sash Hardware, Screen Hardware and Blind Hardware. The Stanley Works have been manufacturing high grade hardware for over 80 years. All Stanley wrought steel products are manufactured from cold rolled steel from their own steel mills. Uniform quality is assured.

Stanley products can be furnished in any finish to match other hardware used, and can be obtained from any builders' hardware dealer.

For Garage Hardware see opposite page.



**Stanley Wrought Steel Ball Bearing Butts
No. BB239**

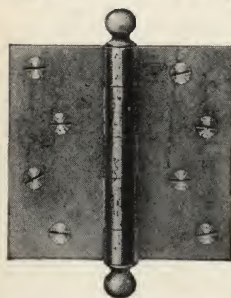
Recommended for use in the finest houses. Equipped with Stanley Ball Bearing Washers to insure ease of operation. Non-rising, self-lubricating loose pins. Inner edges of leaves beveled. Highly polished and heavily plated. Furnished in all standard finishes.

Sizes, inches, $2\frac{1}{2} \times 2\frac{1}{2}$, 3×3 , $3\frac{1}{2} \times 3\frac{1}{2}$, 4×4 , $4\frac{1}{2} \times 4\frac{1}{2}$, 5×5 , 6×6 .

**Stanley Wrought Steel Butts
No. 239**

Adapted for fine work. Inner edges of leaves are beveled. Loose Pin is non-rising and self-lubricating. Highly polished and heavily plated. Furnished in all standard finishes.

Sizes, inches, 2×2 , $2\frac{1}{2} \times 2\frac{1}{2}$, 3×3 , $3\frac{1}{2} \times 3\frac{1}{2}$, 4×4 , $4\frac{1}{2} \times 4\frac{1}{2}$, 5×5 , 6×6 .



**Stanley Wrought Steel Butts
No. 241 1/2**

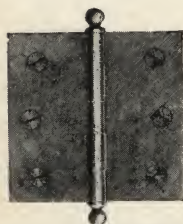
A finely polished and plated butt recommended for general use. Loose pin is non-rising. Furnished in all standard finishes.

$3\frac{1}{2} \times 3\frac{1}{2}$, 4×4 , $4\frac{1}{2} \times 4\frac{1}{2}$, 5×5 and 6×6 .

**Stanley Wrought Steel Butts
No. 241**

Planished and plated. Adapted for general use. Loose pin is non-rising. Furnished in all standard finishes.

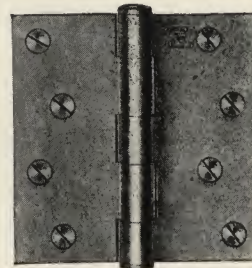
Sizes, inches, 2×2 , $2\frac{1}{2} \times 2\frac{1}{2}$, 3×3 , $3\frac{1}{2} \times 3\frac{1}{2}$, 4×4 , $4\frac{1}{2} \times 4\frac{1}{2}$, 5×5 and 6×6 .



**Stanley Wrought Steel Light Loose Pin Butts
No. 289**

Planished and Plated. Recommended for use on light weight doors such as china closets, cabinets, cupboard, etc.

Furnished in all standard finishes. Sizes: inches, 2×2 , $2\frac{1}{2} \times 2\frac{1}{2}$, $2\frac{1}{2} \times 2\frac{1}{2}$, $3 \times 2\frac{1}{2}$, 3×3 .



**Stanley Wrought Steel Butts
Designed for Painting
No. 235**

Extra clearance is provided between knuckles and edges of the leaves to prevent marring the paint when the door is operated.

Loose pin is non-rising.

Supplied with flat button tips but ball tips can be furnished if desired.

Provided with a priming coat to serve as a base for painting.

Size: inches, 3×3 , $3\frac{1}{2} \times 3\frac{1}{2}$, 4×4 , $4\frac{1}{2} \times 4\frac{1}{2}$, 5×5 , 6×6 .



**Stanley Wrought Steel Surface Bolts
No. 381 and No. 379**

Strong bolts used to fasten the top and bottom of double doors and windows.

No. 381 $\frac{1}{2}$ in. half round rods. Sizes 4, 6, 9, 12 and 18 in. lengths. $1\frac{1}{4}$ inch throw.

No. 379 $\frac{3}{8}$ in. half round rods. Sizes 3, 4, 6 and 9 in. lengths. 3 in. size has $\frac{5}{8}$ in. throw. 4, 6 and 9 in. sizes have 1 inch throw.

Furnished in all standard finishes.

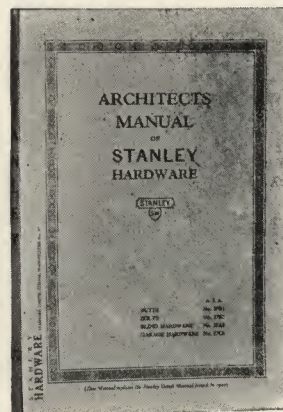
**Stanley Wrought Steel Door Holders
No. 456**

Can be used on doors of any weight. Especially recommended for doors equipped with door checks, single or double acting spring hinges.

Equipped with composition rubber tip, self adjusting to unevenness of the floor.

Slight pressure on trip lever releases the holder.

Plates are 5×2 in., diam. of bolt $\frac{3}{4}$ in. Throw $1\frac{1}{4}$ in. Furnished in all standard finishes.



THE SELECTION OF CORRECT HARDWARE MADE EASY!

This Manual of 125 pages, fully illustrated, will be sent to Building Contractors on request, free of charge.

The Stanley Architects Manual gives standard specifications and detail drawings for the selection and installation of Stanley hardware. With this useful book it will be easy to choose and specify hardware of the correct weight and finish for every need.



For further details and literature, write to:

THE STANLEY WORKS

New Britain
Connecticut

STANLEY GARAGE DOOR HARDWARE

New York:
100 Lafayette St.
San Francisco, Cal.
Los Angeles, Cal.

Made by
THE STANLEY WORKS
New Britain, Conn.

Chicago:
61-67 W. Kinzie St.

Seattle, Wash.

Products

Garage Door Hardware Sets, including Hinges, Bolts, Latches, Handles and Door Holders.

For Builders' Hardware see opposite page.

Design

The Stanley Works were the original manufacturers of hardware especially designed for Garage Doors.

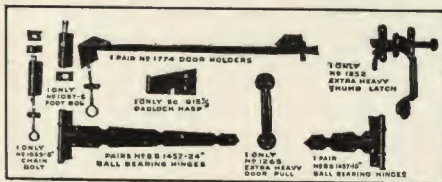


Stanley Garage Hardware Set

No. 1785

Two pairs of 24 inch and one pair of 10 inch Ball Bearing Hinges make this a very attractive and serviceable set for a well designed garage.

Articles comprising Set No. 1785



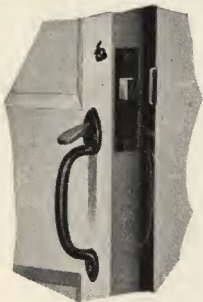
No. 1053 Bolt

Locked for Door Opening Out.

Stanley Extra Heavy Wrought Steel Bolt Espagnolette Type—No. 1053

For garage doors opening in or out. Made for doors 8 ft. high with 3" adjustments in either direction—special sizes to order. Made of cold rolled steel, handle bronze plated. Applies considerable leverage at top and bottom and will draw door into place even when warped.

Stanley Wrought Steel Mortise Thumb Latch—No. 1289



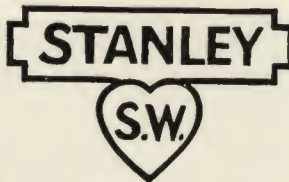
Designed for garage doors that are not rabbeted. Made for doors 1 5/8" to 2 1/4" in thickness. All parts unusually large and strong. Latch-bolt drop forged and cold galvanized. Spring of hard phosphor bronze. Latch and handles of wrought steel.

Stanley Heavy Wrought Steel Ball Bearing Garage Hinges No. BB1460



Loose Pin—Oval Tip

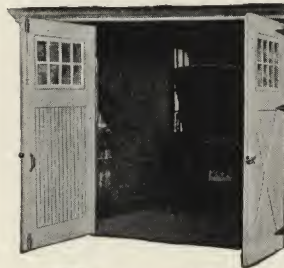
Made of extra heavy wrought steel toughened and hardened by cold rolling. Reversible, can be applied as a full surface or half surface hinge. Made in three sizes, 18 in., 24 in., and 32 in. (Length of door leaf.)



Ball Bearing Hinges were designed to eliminate wear on the joint of the hinge and to insure ease of operation.

Garage Sets

Stanley Garage Hardware is regularly packed in complete sets to meet the requirements of various types of garage doors. They are packed complete with screws and bolts.



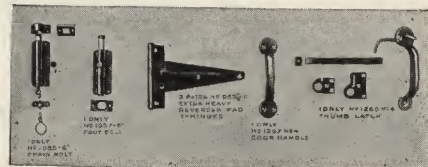
Stanley Garage Hardware Set

No. 1776

For use on light or medium weight Garage Doors.

This set does not include the door holders No. 1774.

Articles comprising Set No. 1776

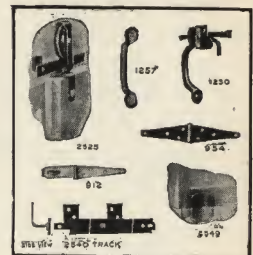


Stanley Garage Hardware Set for Rolling Doors

No. 2505

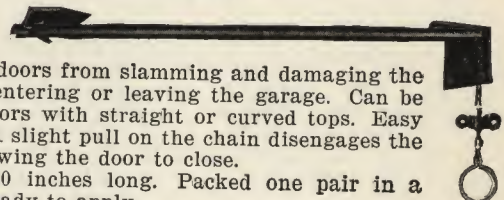
The hardware in the set can be arranged to make three combinations of doors.

Articles comprising Set No. 2505



Very little floor space is necessary. In all combinations the doors roll along the side wall. One combination only is shown.

Stanley Wrought Steel Garage Door Holders No. 1774



Prevent doors from slamming and damaging the car when entering or leaving the garage. Can be used on doors with straight or curved tops. Easy to apply. A slight pull on the chain disengages the holder allowing the door to close.

Bar is 30 inches long. Packed one pair in a package, ready to apply.

For further details and literature, write to:

THE STANLEY WORKS

New Britain
Connecticut

Garage Door Hardware

If the door arrangement you desire is not shown on this page write for our complete catalog.

Made by
ALLITH-PROUTY CO.
Danville, Illinois

We make Right Angle and Round-a-Corner Door Hangers, Parallel, Folding Sliding Door Equipment and many other forms.



Type No. 3D

For the single car garage. It allows for two doors to fold to one side with passage door hinged to the opposite jamb.



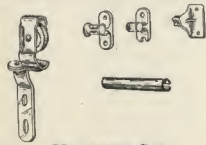
Type No. 3D-1

The same as the 3D type except that all three doors slide to one side and passage door locks against jamb.



Type No. 4D

This type allows two doors to fold to each side. Separate passage door should be provided for.



No. 1180 Set

Round track equipment for light folding sliding doors. Steel swivel hanger with roller bearing machined cast wheel.



No. 1080 Set

Trolley track type of equipment for medium weight doors. Four wheel roller bearing truck, ball-bearing swivel, adjustable connection to door plate. Adjustable malleable track brackets.



Typical Installation of 3D Type



Type No. 4D-1

For four door openings and includes passage door. Three doors fold to one side, passage door hinged to the opposite jamb.



Type No. 5D

For wider openings. Two doors fold to one side and three to the other. Middle door serves as a passage door.



Type No. 6D

For two car garage—three doors fold each way. Either of the two middle doors may serve as passage door.



No. 1081 Set

A larger size similar to No. 1080 except for heavy doors. This will carry the heaviest doors on the private garage.



No. 1082 Set

The strongest equipment for folding sliding doors. Built for use on exceptionally large and heavy doors.

Products:

This company makes a complete line of Garage (or Barn) door equipment for swinging and sliding doors. Among unusual devices manufactured by this company are hardware for vertically sliding doors and an electrically operated garage door control with which the doors may be opened or closed by remote control.

Various Arrangement of Doors:

Where an opening is closed by two doors the simplest arrangement is the swing door set. Two types are made by this company; offset and reverse pad "T" hinges.

With three, four, five or six doors some form of sliding or folding-doors is required. The small sketches illustrate the different methods of taking care of these conditions.

Different Types of Equipment:

Local conditions and weight of doors will determine the kind of track to be used.

For use on the ordinary private garage, where the doors do not weigh over 150 lbs. each, our round track No. 1180 set gives splendid satisfaction.

The hanger with steel frame is of the swivel type, reversible and provided with vertical adjustment. The machined cast wheel $2\frac{1}{2}$ inches in diameter, has hardened steel axle and lubricated roller bearings. The safety guard prevents derailment.

The track is a $\frac{3}{8}$ -inch tube made of heavy gauge high carbon steel with a slot in the back for insertion of the malleable brackets which are spaced to meet the requirements.

The elements of noise and friction are practically eliminated for the hanger wheel with its small point of contact on the tubular track travels with no side friction.

When the doors are subjected to harder service they should be equipped with our No. 1080 hardware. This is the trolley track type and affords the best method of supporting folding sliding doors.

The malleable brackets which support the track are adjustable so the doors may be opened at any angle.

The hangers have double adjustments, roller bearing wheels, ball bearing swivels, vertical side rollers that prevent any side friction in the track, and one piece certified malleable frame and apron.

The 1081 and 1082 outfits are similar in operation to the 1080 but are larger and heavier in construction.



For further details and literature, write to:

ALLITH-PROUTY CO., DANVILLE, ILLINOIS

Garage Door Hardware

If you have a special hardware application, you are invited to call upon our engineering department whose services are offered to you without obligation.

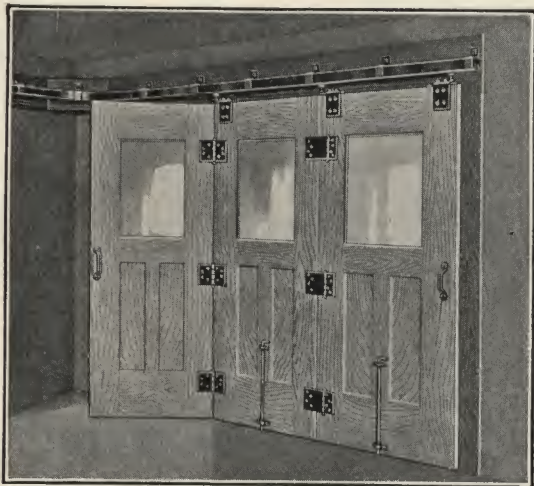
Made by
ALLITH-PROUTY CO.

Danville, Illinois

In addition to the items shown, we make hardware for fire doors, warehouses, municipal buildings, airplane hangars and industrial uses.

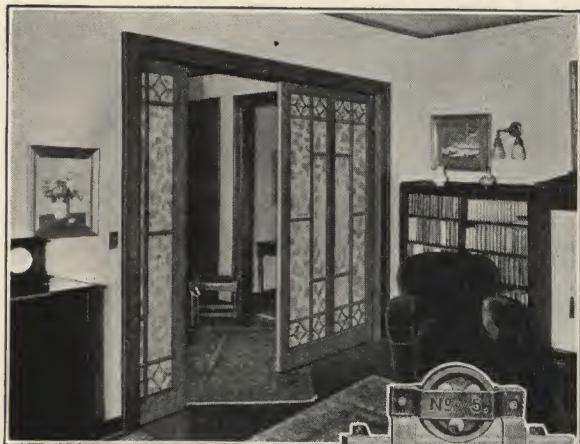
Around-the-Corner Hardware

For Doors That Slide Around-a-Corner



When space is a prime consideration we recommend our Round-A-Corner equipment. This method of installation provides a means of rolling the doors around the corner against the side wall and completely clears the opening. This hardware is furnished either with our round track or trolley track.

No. 5 Hangers for Disappearing Doors



No. 5 Cushioned Track for House Doors, silent and smooth running.

The No. 5 Hanger is designed to carry a door noiselessly, and no other outfit combines the desirable features embodied in it. The construction throughout prevents the loud rattling and rumbling characteristic of other styles, and guarantees durability and efficiency.

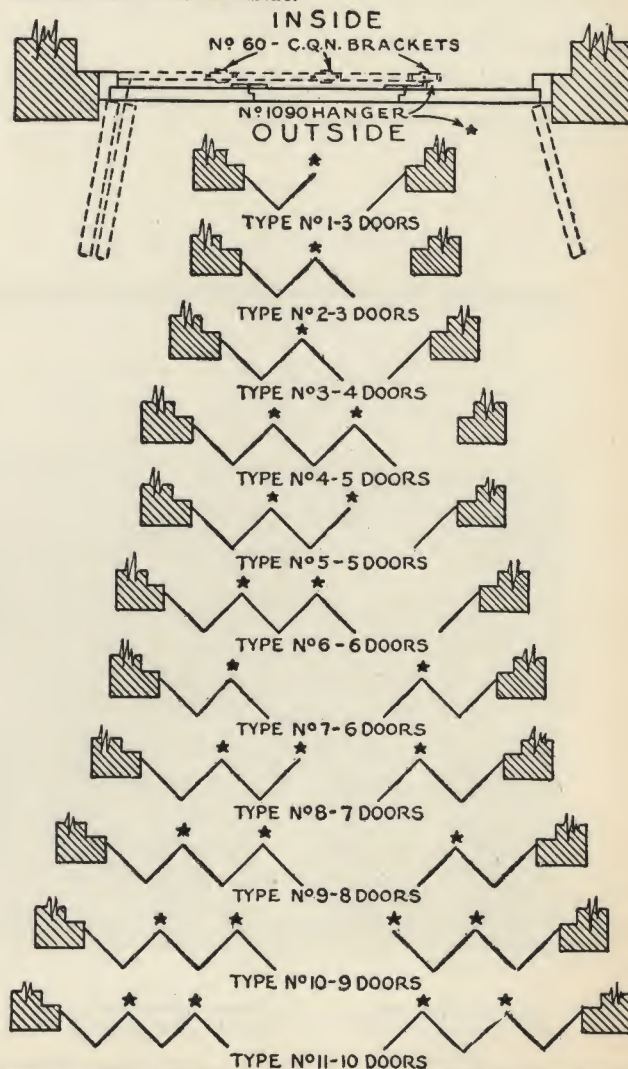
Cushion Track, the track is especially constructed for our No. 5 only. The hard maple rail is thoroughly kiln dried and mounted in a felt cushion, supported by a metal casing, which is made in one-foot sections, so that any vibrations which might penetrate the felt are confined to one piece of steel and are not distributed along the entire track.

Folding Sliding Hardware

No. 1090 saves space by folding the doors outside.



This hardware can be used for almost any number of doors and is made in three sizes. The plans below show the different types of application. The doors fold outward but the hardware is inside.



For further details and literature write to:

ALLITH-PROUTY CO., DANVILLE, ILLINOIS

McCABE DOOR HANGERS

Made by

THE McCABE HANGER MFG. CO.

425-427 West 25th St., New York City

Products

This company makes Ball Bearing Door Hangers, Track and Hardware for all types of Sliding and Folding Doors, Overhead Carrying Devices, Expansion Bolts, Ball Bearing Wheels and Rolling Ladders. We have specialized in this line of work for 30 years and have developed hangers to meet every possible condition, many of them possessing unique and useful features not found in any other hanger. We are always glad to assist builders with advice based on our long experience. Put your sliding or folding door problems up to us and we will show you how to get the best results with least labor.

Sliding Doors For Homes

Below is illustrated the McCabe Double Sliding Door Equipment and method of installing. Similar equipment can be furnished for single doors. Note particularly the two adjustments, one raising and lowering the track and the other permitting the door itself to be raised or lowered. In designing this equipment careful attention has been paid to *accessibility*. You will find McCabe Hangers the easiest to install and easy to adjust, should settling of the building make adjustment necessary.

Best Materials Used

Our house door hanger is made of 13-gauge steel, the heaviest gauge used in any house door hanger. Carriages have steel frames and double ball-bearing wheels. All parts are case hardened and carriages are furnished with hard, fibre wheels, insuring long life and quiet operation. Header plates, door plates, stops and guides are of malleable steel. Tracks are self-clearing. Nothing better made, yet the price is but little more than the cheapest hanger on the market. Remember that your principal cost in door



hanging is *labor* and do not economize on material. You save money on McCabe Hangers because they are designed and made to insure quick and satisfactory installation.

Accordion, or Folding, Door Hanger

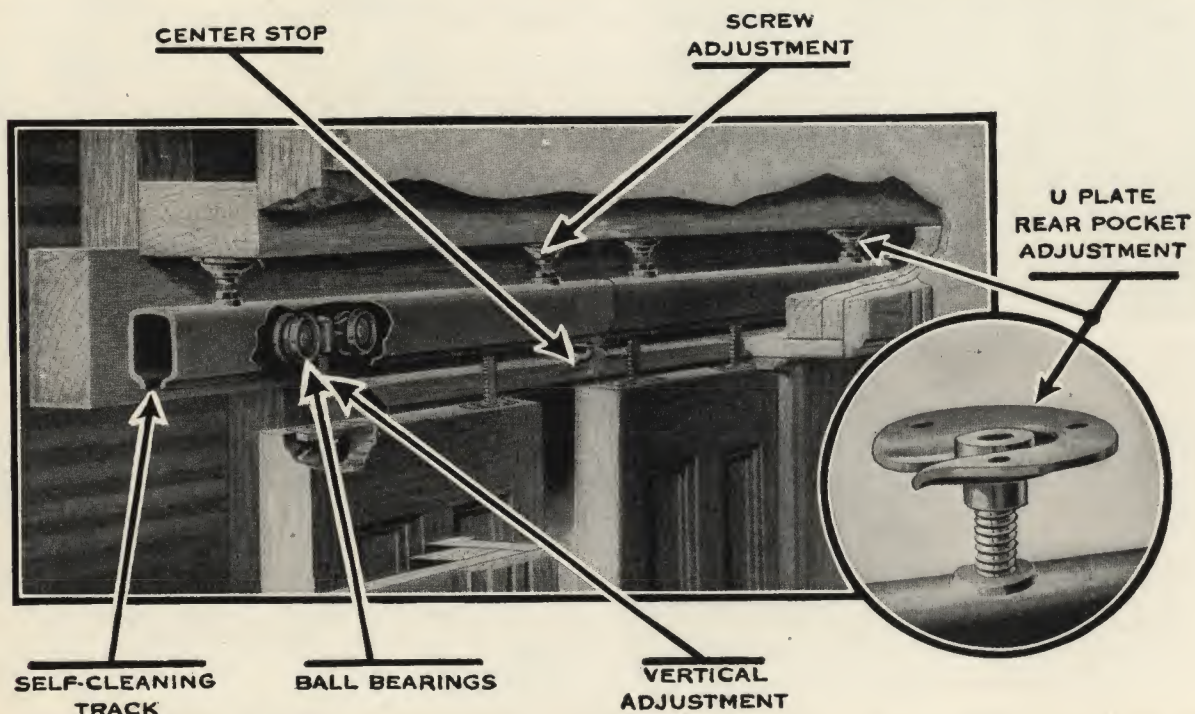
This equipment enables you to combine living room and dining room in one spacious room, yet provides for a folding partition between the two when desired. Gives your houses a unique feature that appeals to many home builders. Write for illustrated catalog and installation diagrams.

Receding Closet Door Hardware

This is another McCabe product that enables you to make your houses unique. Very useful, too, where space is limited. Closet door instead of swinging out, like a hinged door, slides back against side wall of closet. Opens and closes easily and when closed resembles an ordinary door. Write for full particulars. This is something you should know about.

Garage Door Hangers

We make a complete line of Sliding Door Hangers for garage and barn doors, also equipment for combination slide-and-swing doors. Our catalog (No. 24) contains 16 diagrams showing various door arrangements and indicates the proper equipment for each. Doors may be arranged to slide in opposite directions, or all in the same directions. Hangers can be furnished for doors of any size and weight and for openings of any dimensions. On receipt of rough sketch showing size of opening and number of doors we will gladly indicate best arrangement.



For further details and literature write to:

THE McCABE HANGER MFG. CO

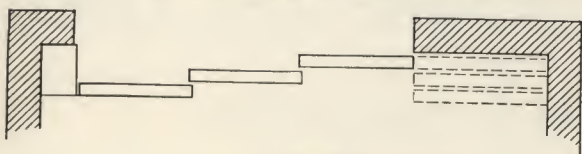
425-427 West 25th St.
New York City

HOME BUILDERS CATALOG

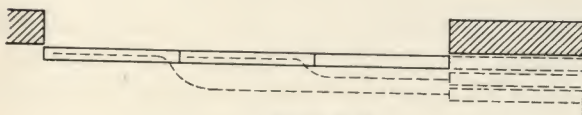
See Next Page

McCabe Door Hangers (Cont'd)

Diagrams Shown Below Indicate a Few of the Many Door Arrangements Possible With McCabe Garage Door Hangers



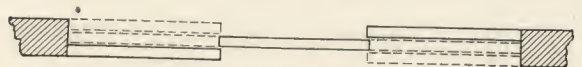
Type G-1



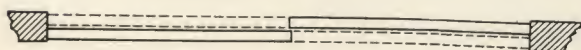
Type G-2



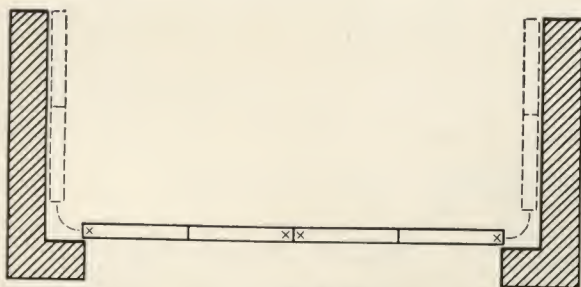
Type G-3



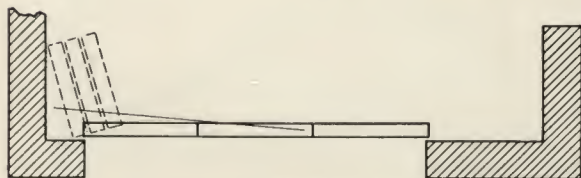
Type G-4



Type G-5



Type G-13



Type G-16



Type G-15



Exceptionally Rugged Construction

All parts included in the McCabe equipment for garage or barn doors are built to last. The SELF-CLEARING track is of heavy gauge steel, carriage frames are of pressed steel, or drop-forged case-hardened steel, wheels are of steel, perfectly true in form and mounted on ball-bearings. Two adjustments, lateral and vertical, enable doors to be fitted accurately to opening without loss of time.



Floor Guide and Weather Strip

The construction illustrated above seals the lower edge of the door against the weather and provides as well a ground guide that keeps doors in perfect alignment. Adds but little to the cost and gives your customer a job that he recognizes as being better than ordinary installations.

Overhead Carriers

If you build barns write for particulars on our Overhead Carriers.

For further details and literature write to:

THE McCABE HANGER MFG. CO

425-427 West 25th St.
New York City

The "OVERHEAD DOOR"

FOR THAT DOORWAY—IN ANY KIND OF WEATHER—WHEREVER DOORS ARE USED

Goes Up Overhead—Out of the Way

When the "Overhead Door" is open, it is up, overhead and out of the way. When it is closed, it fits tight at top, bottom and sides. All hardware is inside, unexposed to the ravages of rain, hail, sleet and snow. The "Overhead Door" is ideal wherever space is at a premium and ease of operation is a factor of importance to the builder.

Easily and Quickly Installed

The "Overhead Door" is made in a wide variety of sizes to accommodate any requirement in a new or an old building. Give us the dimensions and a sketch if possible, and we will be glad to send complete information. The door comes complete with woodwork, track, hardware and lock, assembled so that the average carpenter can install it in about two to three hours time.

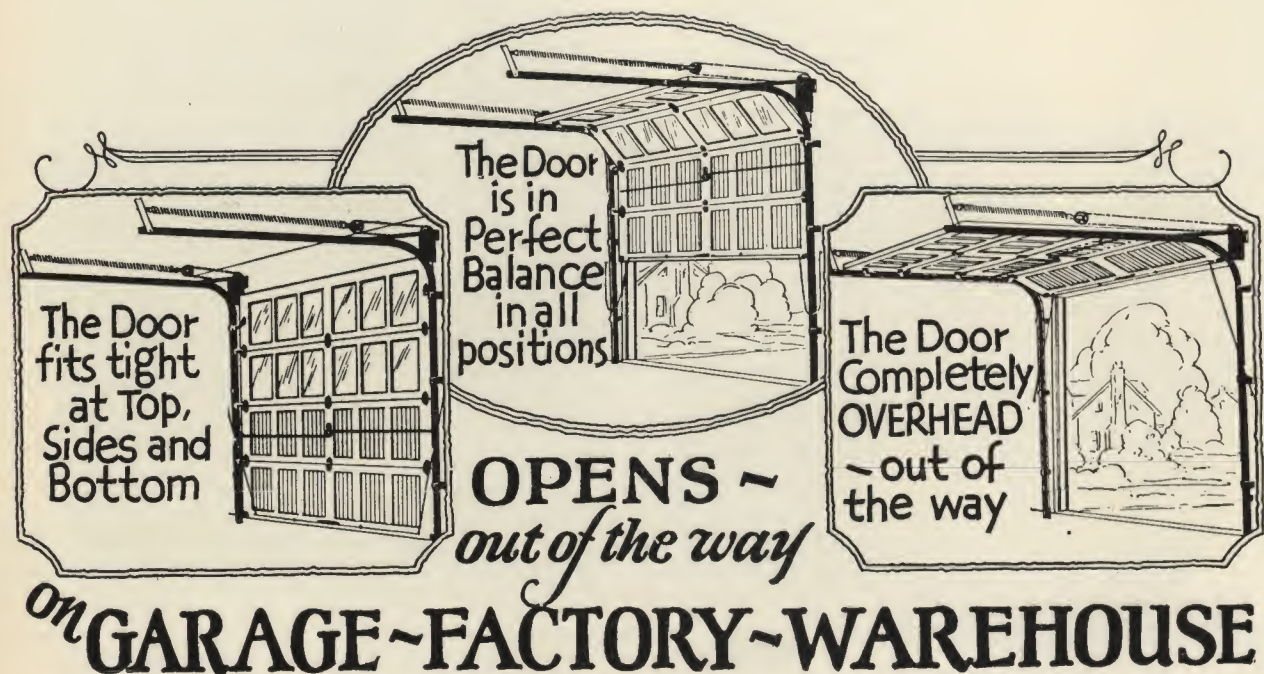
A Child Can Operate This Door

The "Overhead Door" is rugged in construction and correctly designed for free and easy operation. The door is supported by tracks on either side and is counter-balanced by means of two large coil springs which enables a child to operate it.

The "Overhead Door" Saves Space

One of the greatest advantages of the "Overhead Door" is the space it saves. This frequently is a very important consideration in planning communicating doors between rooms in factories, schools, churches, as well as in public and private garages. In narrow alleys this is extremely important to the builder.

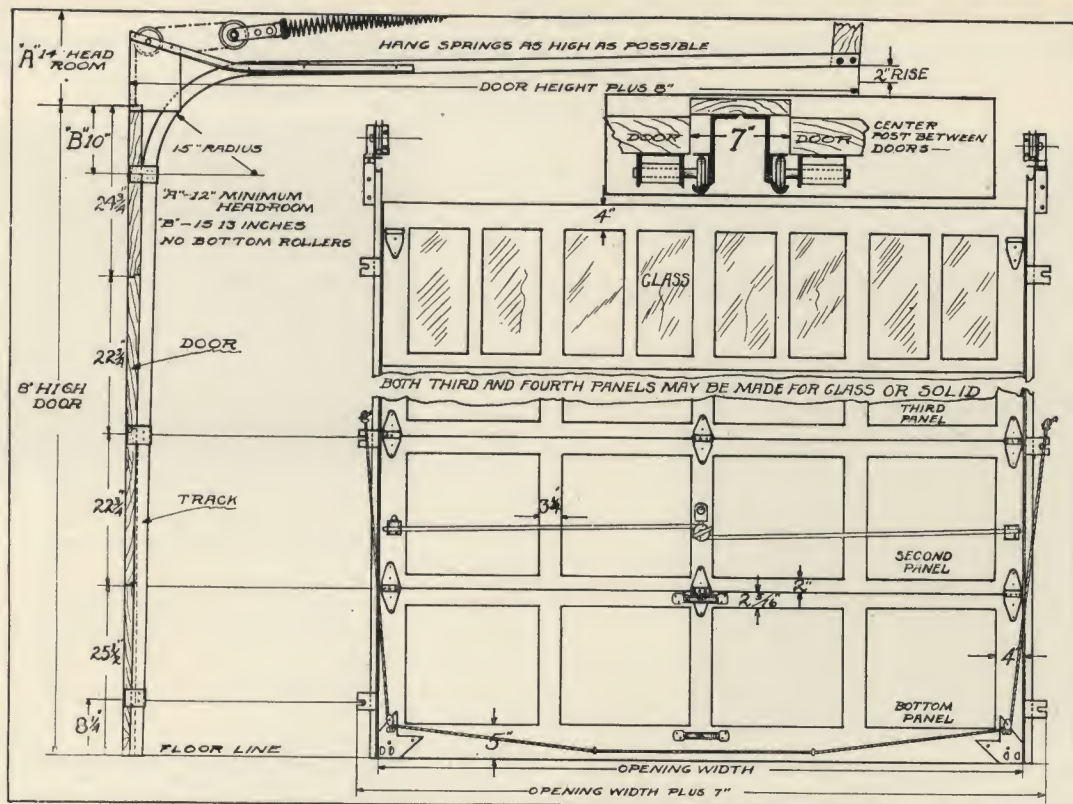
Doors 8 ft. x 8 ft. or 8 ft. x 7 ft. 6 in., carried in stock. Any panel can be arranged for glass. Equipped with Yale locking device.



For further details and literature, write to:

OVERHEAD DOOR CORPORATION, Hartford City, Ind.

The "OVERHEAD DOOR"



ELECTRICALLY OR HAND OPERATED

The "Overhead Door" is perfectly balanced permitting easy hand operation. The Electric Control is a modern convenience enabling the "Overhead Door" to be controlled from any number of switches either on the inside or the outside of the building. Hundreds of controls are giving perfect service and satisfaction.

There's An "Overhead Door" to Fit Your Need



For further details and literature, write to:

OVERHEAD DOOR CORPORATION, Hartford City, Ind.

R-W Slidetite Garage Door Hardware

Cable Address
"Richwilco Aurora"

Made By
RICHARDS-WILCOX MFG. COMPANY
AURORA, ILLINOIS

Canadian Factory
London, Ontario

FOR BRANCH OFFICES SEE PAGE 222

Products

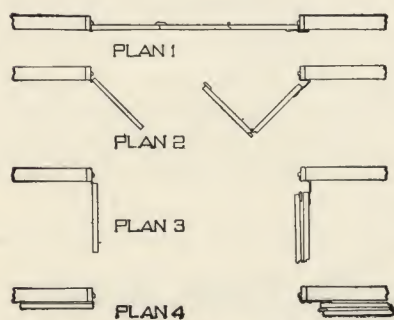
Air-Way Multifold Window Hardware, Garage Door Equipment, Vanishing House Door Hardware, Garage Door Bolts, locks and floor guides, Builders Brackets and Hardware Specialties.

For Window Hardware, see page 222.

R-W "Slidetite" Sliding-Folding Garage Door Equipment



Interior view of a three door Slidetite installation.



Floor plans showing various positions of doors. (1) doors closed, (2) doors partly open, (3) doors opened at right angles to front wall, (4) doors open parallel with front walls, giving clearance from jamb to jamb.

R-W "Slidetite" Sliding-Folding Garage Door Equipment

Combination hinged, folding and sliding type for openings from 8 to 30 feet wide. Doors are hinged at jamb on inside of building with one of each pair of doors supported at outer edge by No. 435 roller bearing sliding door hangers. Space requirement between doorway and car equals approximately the width of one door plus 4 in. where No. 435 hardware is used, or the width of one door plus offset of hinge where No. 1035 hardware is used.

"Slidetite" doors fit perfectly tight, are weather-proof, can not sag, and will not warp. All of the openings may be used at one time.

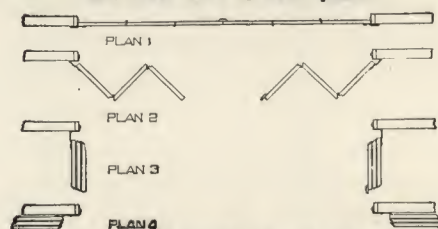
Styles

"Slidetite" outfits are made in two styles—No. 435 and No. 1035; the designating numbers referring to the style number of hinge used, the No. 435 hinge being a half surface hinge or butt while No. 1035 is an offset strap hinge.

No. 435 hardware for light doors is furnished with a half-surface hinge which throws 2 doors on each side of the opening clear of the jamb. Heavier No. 435 Hardware is furnished with butts which cause the doors, when standing at right angles to the opening, to project into the opening. With the No. 1035 hinge, the doors swing clear of the opening.



In a six door set, three of the doors slide and fold back to each jamb.



Floor plans showing various positions of doors. (1) doors closed, (2) doors partly open, (3) doors opened at right angles to front wall, (4) doors open parallel with front walls, giving clearance from jamb to jamb.

Thickness of Doors

For private garages, doors 1 3/4" thick should give satisfactory service. For public garage doors, subject to hard usage, doors 2 1/4" thick should be used. Hardware is made to handle doors up to 2 1/2" thick.

Equipment

All necessary hardware is furnished with each "Slidetite" outfit, including: track, hangers, brackets, hinges, bow handles, top and bottom bolts and all screws and bolts necessary to erect. Lock for entrance door not furnished with sets, but should be specified separately.

Intermediate and end brackets are adjustable. Hangers have metal wheels, vertical adjustment and ball-bearing swivel pendants.

No. 517 or 617 top and bottom Cremona bolts are required to lock the doors in place. Floor guides are furnished where necessary and two bumper shoes are attached to lower corner of door to prevent chafing by guide.

Locking

If no separate entrance door is available (1) hang the doors so one door near the center of the opening will be hinged free to serve as passage door, or (2) specify No. 1125 outside lock with No. 617 Cremona bolt inside.

Special Features

In the winter time when snow and ice is liable to pile up against the outside of the garage doors, it is unnecessary to dig your way into the garage, as Slidetite doors open inside. The hinges used at the jamb are provided with an offset which throws the doors in back of the jamb and give a clear opening from jamb to jamb.

Service

If you have any special problems in regard to hanging garage doors, R-W engineers will be glad to suggest to you the proper equipment to handle any doors.

A special catalog has been prepared on this subject, and the information contained therein, is very complete and concise, and a copy will be gladly sent upon request.



For further details and literature, write to:

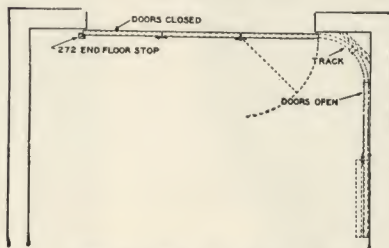
RICHARDS-WILCOX MFG. COMPANY, Aurora, Illinois

Richards-Wilcox Garage and Vanishing Door Hardware

R-W No. 235-JJ "Slydasyde" Garage Door Equipment



Interior view, three door "Slydasyde" No. 235-JJ installation. Standard 2'8" doors are used.



Floor plans of above set

For three doors hinged together. The door nearest the side of the building toward which the doors slide when opening is used as an entrance door. The doors may be mounted to slide to the right or to slide to the left. The hardware is reversible and can be used in any opening regardless of the distance from the jamb to the side wall.

Special Features

The entrance door swings free and is folded back before the doors are operated around the curved section of the track. In this way, but little space is required between the doorway and the back end of the car when it stands in the garage. When in open position, the doors lie flat against the side wall of the garage. If a two car garage is being built set, 235-KK 6 door hardware should be specified. This would mean that three of the doors would slide to each side wall when in open position.

Service

Detailed information regarding this hardware is contained in our special catalog "Distinctive Garage Door Equipment," copy of which will be sent upon request.

R-W Vanishing House Door Hardware

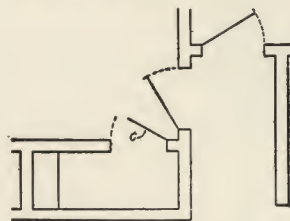


The above illustration shows vanishing doors which operate upon R-W hangers and track. The utility and ornamental possibilities of having these doors vanish into the wall instead of swinging into the room are obvious. The doors interfere in no way with draperies, furniture, or fixtures of the home.

The wide opening between two rooms, which can be completely closed when desired, gives an effect of spaciousness which is most pleasing.

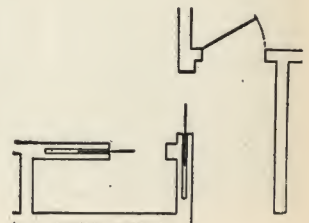
The use of vanishing doors is now becoming more general than ever before. Space is one of the most desired features in the bungalow, apartment or house and architects are taking advantage of the space saving features, which vanishing doors permit, and are specifying them in their plans.

Space Saving Feature



The plan to the left shows three swinging doors, two of which open toward each other. These could be improved by the installation of vanishing doors, as illustrated below.

The occupants of thousands of apartments, particularly in our larger cities, where space is at a premium, have found it necessary to substitute hanging drapes in places like this, where closet doors interfere with access to the closet.



For further details and literature, write to:

RICHARDS-WILCOX MFG. COMPANY, Aurora, Illinois

McKINNEY QUICKLOCK

For Garages ~ the Turn of the Key Operates Cylinder Lock and All Bolts

Made by

McKINNEY MANUFACTURING CO., Pittsburgh, Pa.

Offices: New York, Boston, Baltimore, Chicago, San Francisco, Montreal and Toronto

Other Hardware, See Pages 230-231

NOTE — Any make of cylinder lock can be used with the Quicklock, thereby making it possible to use the same key for house and garage.

The entire mechanism of the Quicklock is operated merely by turning a key in the lock. This instantly releases the upper and lower gripper jaws and the door opens.

Locks automatically and securely—The key remains fast in the lock until the door is closed again. The key cannot be mislaid. The mere closing of the door locks it and releases the key. Both gripper pawls are made of heavy reinforced wrought steel. The protecting case around the bottom pawl makes it impossible for anyone to release the lock by using an instrument under the door.

Snow or ice does not prevent locking—The floor plate allows a play of about one inch, permitting doors to be closed and locked even when jammed with snow or ice.

No springs. Nothing to get out of order—The construction is strong and rugged. There is no weak spot.

Easy to install. No rabbeting of doors—The complete installation of the Quicklock is not more than a twenty- or thirty-minute job. Instruction sheet is furnished. It is not necessary to rabbet the garage doors when Quicklock is used. Two steel plates, furnished, are applied to the stile of the door which closes first. These provide a stop for the other door.

No service door necessary—The opening and closing of the main door is as easy as the operation of a service door. For this reason the expense of a service door can be saved.

Price Complete \$7.50

CLOSING



CLOSED



For further details and literature, write to:

McKINNEY MANUFACTURING CO., Pittsburgh, Pa.

ACCO No. 8 Sash Chain

Runs freely and silently over round cord pulleys

Made by

AMERICAN CHAIN COMPANY, Inc., Bridgeport, Conn.

Architects and contractors agree that chain is the practical material for window suspensions. Most of the large hotels and office buildings now being constructed use sash chain throughout. Builders of cottages, bungalows and residences recognize the many advantages of permanent steel *ACCO Sash Chain*, and include it in their specifications.

Easy to Install—Costs No More Per Window

ACCO No. 8 Sash Chain comes in bags of 100 feet, easy to handle on the job. It is not necessary to waste material and time tying knots, as with cord. Carpenters can hang forty windows in the same time that it takes to hang thirty with cord. Each bag contains necessary hooks for attaching the chain to the window and weights.

Economy

100 feet of ACCO No. 8 Sash Chain will hang at least seven double windows—100 feet of cord will hang only five. Here is a saving of material that runs into money. Carpenters much prefer chain after they once do a job with ACCO No. 8 Sash Chain. Lasts as long as the sash itself—saving all expense and inconvenience of renewals.

ACCO No. 8 Sash Chain Operates Perfectly Over Round Cord Pulleys

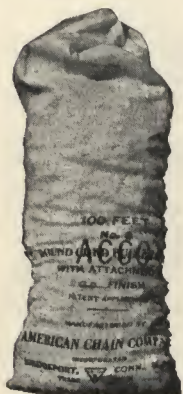
It is not necessary to install special pulleys—the chain is shaped to fit any cord pulley. It rides freely and silently without “riding” or jamming.

Material

Copper bearing steel is used for the manufacture of all ACCO Sash Chain. The merits of Copper Bearing Steel have been fully recognized by the American Society for Testing Materials. Both the raw material and the finished ACCO Sash Chain are subjected to all the physical tests necessary to prove its strength and ability to withstand service shock loads.

Packing

100 feet of chain is packed in a strong cloth bag with sufficient fixtures for attaching to sashes and weights for at least 7 double-hung windows—handy, ready to use right on the job.



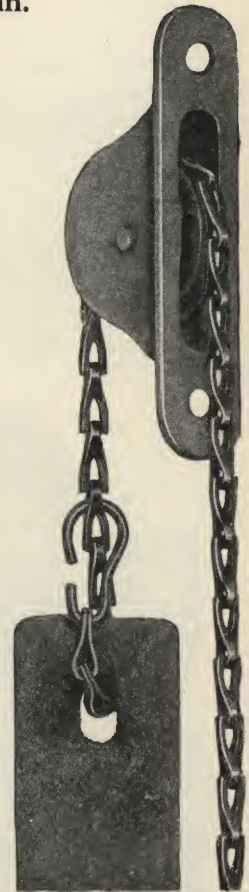
In Canada:

Dominion Chain Company, Ltd.
Niagara Falls, Ontario

District Sales Offices:

Boston, New York, San Francisco,
Philadelphia, Chicago, Pittsburgh

World's Largest Manufacturers of Welded and Weldless Chains and Makers of the Famous
WEED Automobile Accessories



The illustration at the right shows the method of anchoring the chain to double hole sash. Simply drop chain through bore in sash, slip hook onto end link and draw back hook into lower hole. Same hooks attach to weights. No knots to tie, and no waste. Carpenters can hang seven windows with ACCO Chain in the time they can hang five with cord.



The illustration at the left shows the method of anchoring the chain to single hole sash. The coil spring is slipped into the end link, and inserted into the hole in the sash. No hammering necessary. Single hole sash is not very common, and these attachments must be ordered if needed.



For further details and literature, write to:

AMERICAN CHAIN COMPANY, Incorporated

BRIDGEPORT
CONNECTICUT

"READI-SET" WINDOW CHAIN

Made by
THE BRIDGEPORT CHAIN COMPANY
 495-505 Bunnell Street
 BRIDGEPORT, CONN.
 TELEPHONE NOBLE 4500

AGENTS

SAN FRANCISCO, CAL., Osgood & Howell, Wells Fargo Bldg.
 CHATTANOOGA, TENN., FAUCETT-HUSTON Co.
 DALLAS, TEX., DAN M. BELL, 222 Slaughter Bldg.

NEW YORK, N. Y., NEW YORK HARDWARE Co., 71-79 W. 45th St.
 LOS ANGELES, CAL., Osgood & Howell, 1006 Washington Bldg.
 SEATTLE, WASH., Osgood & Howell, 302 Pioneer Bldg.

"Readi-Set" Window Chain for Residential Use

Products

"BRIDGEPORT STEEL" SASH CHAIN.
 "MONARCH BRONZE" SASH CHAIN.
 SASH FIXTURES, including Hooks,
 Chain Fasteners, Wire Rings and
 Sash Cups.

Readi-Set
 With Attachments
Window Chain
REG. U.S. PAT. OFF. 1927

Readi-Set prevents waste of material as no cutting or measuring is necessary.

Readi-Set saves at least one-half the time heretofore necessary when using cord. No tools or cutting is required when using Readi-Set.



READI-SET WINDOW CHAIN for Residential Use.

Readi-Set is sash chain for use in residence windows not exceeding 20 lbs. in weight. It is four pieces of standard Bridgeport rustproof sash chain, of ample size, cut to the proper length.

No. 47 is for windows up to 5 ft. 6 in.

No. 57 is for windows up to 6 ft. 6 in.

A cup fastener to fit the sash is permanently fastened to one end of each piece of chain. Hooks for the end holding the weight are packed with each set.

One set, as described above, is packed in an individual box. Twelve of these boxes are packed in a carton.

There is no after expense with Readi-Set as it does not stretch or jam on sash pulleys.

Readi-Set works on any type of sash pulley as well or better than cord.

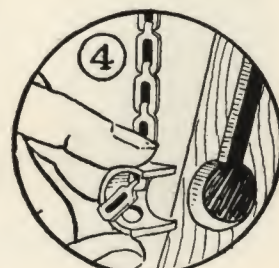
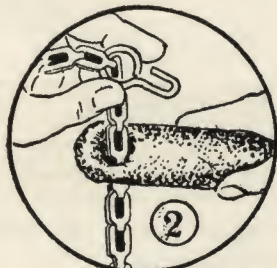
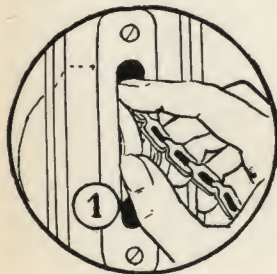
The same length of Readi-Set will hang more windows than the same length of cord.

Readi-Set is sheradized, the best known method of rustproofing.

Readi-Set is fireproof and can be painted to match the color of the rooms in which it is used.

Readi-Set is just as good for repair work as for new homes.

There is only one Readi-Set—made only by THE BRIDGEPORT CHAIN COMPANY.



Illustrating the Simplicity of Installation



For further details and literature, write to:

THE BRIDGEPORT CHAIN CO.

495-505 Bunnell St.
 Bridgeport, Conn.

SAMSON SPOT SASH CORD

Made by
SAMSON CORDAGE WORKS
 88 Broad St., Boston, Mass.

Products

The Samson Cordage Works manufactures Braided Cord in all sizes and colors, for all purposes, including Samson Spot Sash Cord and other Sash Cords, Clothes Line, Awning Line, Ventilator Cord, Curtain and Shade Cord, Mason's Line, Dumbwaiter Rope, Etc., also Cotton Twines.

Advantages

Samson Spot Cord is made of extra quality cotton yarn, smoothly and firmly braided, carefully inspected, and guaranteed free from imperfections of braid or finish.

Identifying Marks

In addition to the labels on each hank bearing the trade-mark of Samson and the Lion, Spot Cord is marked with colored spots, which are a means of identification after the label is removed, and prevent substitution of inferior cord. The spots may be of any color and are used only with this quality of cord.



Samson Trade Mark

Avoid Adulterated Cord

The cost of replacing a single broken window cord is often more than the difference in first cost for an entire house between Samson Spot Cord and the cheapest sash cord obtainable.

Much of the ordinary sash cord now offered contains a large percentage of cheap loading material, either in the center or throughout. This increases the weight and greatly decreases the durability of the cord. In many cases this loading makes the cord so stiff as to interfere with its operation over the pulleys.

By using Samson Spot Cord, you can be sure of getting cord free from adulteration.

Specifications

Specifications should read: "Windows to be hung with Samson Spot Cord; size of cord and size of pulleys to agree with manufacturer's list." (See illustrations at bottom of page.)

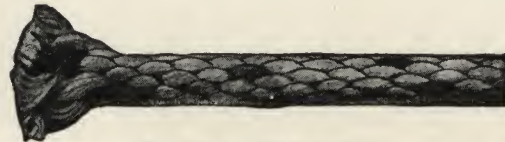
SAMSON SPOT CORD

The number indicates the diameter of 32ds of an inch.



Size No. 6. Diam. 3/16 in.

About 18 lbs. per doz.; about 66 ft. per lb.
 Suitable for weights of less than 5 lbs. Minimum diam. of pulley allowable 1 1/2 in.



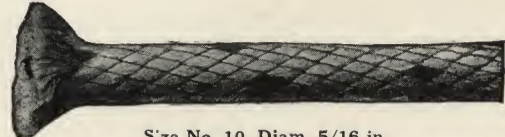
Size No. 9. Diam. 9/32 in.

About 33 lbs. per doz.; about 36 ft. per lb.
 Suitable for weights from 20 to 30 lbs. Minimum diam. of pulley allowable 2 1/4 in.



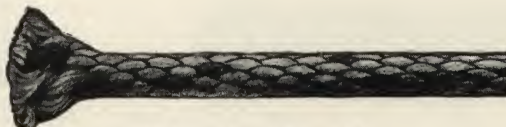
Size No. 7. Diam. 7/32 in.

About 22 lbs. per doz.; about 55 ft. per lb.
 Suitable for weights from 5 to 12 lbs. Minimum diam. of pulley allowable 1 3/4 in.



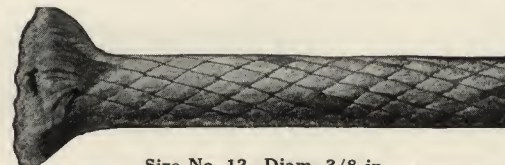
Size No. 10. Diam. 5/16 in.

About 44 lbs. per doz.; about 27 ft. per lb.
 Suitable for weights from 30 to 40 lbs. Minimum diam. of pulley allowable 2 1/2 in.



Size No. 8. Diam. 1/4 in.

About 27 lbs. per doz.; about 44 ft. per lb.
 Suitable for weights from 12 to 20 lbs. Minimum diam. of pulley allowable 2 in.



Size No. 12. Diam. 3/8 in.

About 60 lbs. per doz.; about 20 ft. per lb.
 Suitable for weights from 40 to 50 lbs. Minimum diam. of pulley allowable 3 in.



HANK SAMSON SPOT CORD

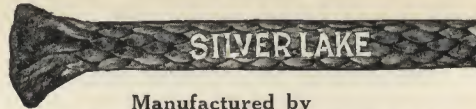


For further details and literature, write to:

SAMSON CORDAGE WORKS, Boston, Mass.

Silver Lake Sash Cord

LOOK FOR THE NAME STAMPED ON EVERY FOOT OF CORD



Manufactured by
SILVER LAKE COMPANY
Manufacturers of Solid Braided Cordage

GENERAL OFFICES
NEWTONVILLE, MASS.

Factories at Chattahoochee, Ga.

CHICAGO, ILL., 20 West Kinzie Street
SAN FRANCISCO, CAL., 604 Mission Street
SEATTLE, WASH., 169 Jackson Street
LOS ANGELES, CAL., 506 American Bank Bldg.

BRANCH OFFICES

NEW YORK, N. Y., 76 Reade Street
PHILADELPHIA, PA., 508 Market Street
BALTIMORE, MD., 405 West Redwood Street
HOUSTON, TEXAS, Box 1335

Products

Silver Lake is a Solid-Braided Window Sash Cord, of unusually substantial wearing quality. This Company also makes Railroad Bell, Trolley, Signal, Curtain and Shade Cord; Arc Lamp, Dumbwaiter and Transmission Rope; Mason's Lines and Clotheslines and various types of Solid-Braided Cordage to specifications.

Advantages of Solid Braided Cordage

Silver Lake Sash Cord is made of the highest quality selected cotton yarns. It's twice doubled and twisted, then braided on solid braiding machines especially designed by this Company. It costs less per pound than linen and other fine fibers, and because of its lighter weight, it costs less per foot than cords that are cheaper per pound. A cotton cord is more durable than one made of linen or hemp because cotton is the only fiber that will withstand constant bending over a pulley. The Silver Lake process of finishing takes up all stretch, therefore this cord does not lengthen as it wears. Silver Lake Sash Cord is smooth in finish and cannot work in between pulley wheel and case—which means FEWER BROKEN SASH CORDS.

To Contractors and Builders

The good will of your customers is your best stock in trade. Don't risk it by using a sash cord of less *stamina* than Silver Lake. The ordinary sash cord begins to go within three to five years. The home owner's confidence goes with it—unless you safeguard it by using Silver Lake, which protects you with a 20-year Written Guarantee. Your selection of Silver Lake Sash Cord also convinces customers that you are "fussy" as to details—a point that is bound to prejudice them strongly in your favor.

Trade Mark

Genuine Silver Lake Cord is stamped with the name "Silver Lake" on every foot. Bulk goods are bound with our label, bearing our trade mark (as shown herewith).

Sizes and Weights

The table below gives the sizes and weights of our cords, specifying weights each size will safely carry.



Silver Lake

Registered in U. S. Patent Office

SIZES, WEIGHTS, LENGTHS, ETC., OF "SILVER LAKE" CORD

| Size No. | Diameter, in. | Weight per dozen hanks, lb. | Feet per pound, approximate | Minimum diameter, of pulley allowable, in. | Suitable for weights, lb. |
|----------|----------------|-----------------------------|-----------------------------|--|---------------------------|
| 6 | $\frac{3}{16}$ | 18 | 66 | $1\frac{1}{2}$ | up to 10 |
| 7 | $\frac{7}{32}$ | 23 | 52 | $1\frac{3}{4}$ | 10 to 15 |
| 8 | $\frac{1}{4}$ | 27 | 44 | 2 | 15 to 25 |
| 9 | $\frac{9}{32}$ | 33 | 36 | $2\frac{1}{4}$ | 25 to 35 |
| 10 | $\frac{5}{16}$ | 44 | 27 | $2\frac{1}{2}$ | 35 to 45 |
| 12 | $\frac{3}{8}$ | 60 | 20 | 3 | 45 and up |

Prices on application.



For further details and literature write to:

SILVER LAKE COMPANY

Newtonville,
Massachusetts

HOME BUILDERS CATALOG

To Sash and Blind Manufacturers

Sash Cord is one of the most noticeable parts of a sash as it's delivered to a job. The slight extra cost for Silver Lake—the trade-marked cord that shows quality at a glance—will be more than offset by the added selling value. Silver Lake Sash Cord is nationally advertised. You'll find it profitable to have this name associated with your product.

To Architects

When you write "Silver Lake Sash Cord" into your specifications—and see that your specifications are followed—you convince clients that you have *their* interests at heart. Merely specifying "cotton braided sash cord" is not enough. This term includes many cheaper cords that will not deliver a fraction of the length of service you can depend on with Silver Lake.

To Carpenters

It pays to carry a hank of Silver Lake Sash Cord in your repair kit. Many times when you are called in to do other repair jobs, you'll find a sash cord broken. A suggestion from you is bound to get an order to replace it. And with Silver Lake, you can do the job *right*. Hardware dealers will supply you.

Special Cords

This Company will furnish estimates promptly from any sample of Special Cords in all colors, with wire centers, etc. Anything in the line of a solid-braided cord, regardless of color or design, may be had, and we earnestly request you to write us, describing your needs.

Silver Lake Distribution

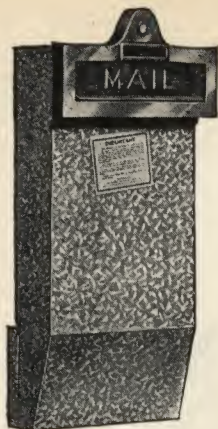
Silver Lake Cords are in use throughout the world, and carried in stock by leading hardware dealers throughout the United States. Should you be unable to find a Silver Lake distributor in your vicinity, please communicate with the Home Office, or our nearest Branch Office, direct.

Guarantee

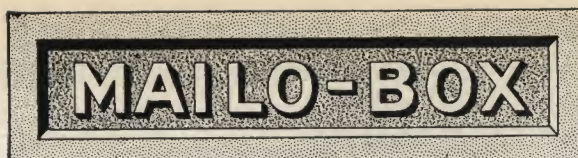
The Silver Lake *written* 20-year Guarantee comes with every hank of genuine Silver Lake Sash Cord. It proves our faith in our product, relieving you of responsibility.

Tests

Tests made by the U. S. Government Bureau of Standards show that Silver Lake outwears chains and cheap cords.



Style A1-A2
A popular model with name plate and door bell attached. Face plate of solid cast bronze. Dull or finished polish.



PAT. U.S. AND CANADA

THE ORIGINAL BUILT-IN MAIL BOX

Made by

PENN-GREG MANUFACTURING CO.

809-11 University Ave., St. Paul, Minn.



Style D1-D2
Face plate of solid cast aluminum, dull finish. This finish blends well with stucco exteriors.

Products:

Mailo-Box (built-in mail box)—a complete unit to be installed in the wall of a house, either during construction or after completion, for the proper reception and safeguarding of mail. Special mail boxes built to order.

Seven Styles for Frame, Stucco or Brick Walls

Description:

The Mailo-Box is a complete unit ready for installation in any kind of a house wall, easily adjustable to all thicknesses of wall, without regard to material used. A sliding throat adjustment eliminates any fitting on the job, making installation simple and perfect. The face plate shutter has an improved curved ledge and set-off edge which makes it rain-, wind- and storm-proof. Face plate with mail slot is only part visible from the outside of house. On the inside of the house only the delivery door of natural birch or oak is visible.

Advantages:

Thoroughly meets the United States Post Office Department regulation requiring a receptacle to insure delivery of mail at residences, because it gives the postman a convenient and absolutely safe place in which to deposit letters, magazines and newspapers. Eliminates the old style outside mail box.

It is thief-proof because all mail is inside the wall and out of reach of wire or hook thieves. Children or the curious cannot handle, examine or destroy mail. Mail cannot blow away or be damaged by the elements. Prevents an unsightly accumulation of unprotected mail during an absence from home.

All mail is taken from the box inside the house. Does away with going outside the house

for mail, particularly in inclement weather. The Mailo-Box is a permanent addition, adding to the convenience, and personal comfort of every home. Takes only a short time to set in place and once installed will never have to be replaced. First cost is the only cost. No expense for upkeep because there is nothing to get out of order.

Types, Styles and Finishes:

The Mailo-Box is made in two types, the first for wood or stucco and the other for brick or tile walls. There are seven different styles with outside face plates in solid cast bronze or cast aluminum in the standard designs. Specially finished face plates in verde green, oxidized, gun black, hand hammered iron finishes, etc., may be had if desired. The concealed part of box is made of high grade galvanized steel with locked and electrically soldered joints. Size of box in all but two styles (E and H) is 10 inches wide, 21 inches long and 3½ inches deep (from front to back). Proper size to accommodate newspapers and magazines.

Can Be Set in Any Wall:

The Mailo-Box is adjustable to any thickness of outside wall, regardless of material used. Type 1 for frame or stucco walls is adjustable from 3½ to 7 inches. Type 2 for brick or brick veneer walls is adjustable from 9½ to 13 inches. Can be installed in homes already built.



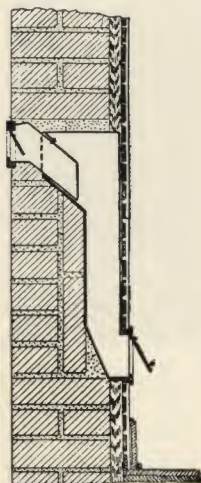
Inside Cabinet Door in natural finish. Oak or Birch. Solid brass mortise hinge and wood knob. Solid cast bronze door can be furnished at \$5.00 net additional. This type door is used on all styles except "E" and "H."

Distributors

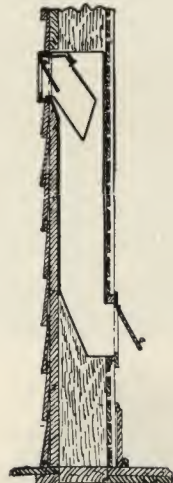
Alabama—Standard Building Material Co.
2700 North 7th Ave., Birmingham
Colorado—The Colorado Builders Supply
1534 Blake St., Denver
Illinois—John C. Gustafson
6028 Grove St., Chicago
Kentucky—R. B. Tyler & Co.
1446-48 Levering St., Louisville
Louisiana—Jos. A. Nunenmacher
1019 Mazant St., New Orleans
Michigan—Sterling Brick Co.
5401 Wabash Ave., Detroit
Minnesota—Janney Semple Hill Co.
Minneapolis
Missouri—Zahner Mfg. Co.
1213 Walnut St., Kansas City
New York—Albany Builders Supply Co.
N. Y. C. Ave., and Manning Blvd., Albany
New York—American Hardwall Plaster Co.
Utica
Ohio—The Canton Hardware Co.
Canton
Ohio—Hardware Roofing & Supply Co.
618-20 Elm St., Cincinnati
Ohio—R. L. Queisser Co.
1137 Schofield, Cleveland
Ohio—Building Specialties Co.
407 Park Theater Bldg., Youngstown
Oregon—Cress & Co., Inc.
96-8 Front St., Portland
Pennsylvania—Bartley Hardware Co.
6203 Penn Ave., Pittsburgh
Tennessee—Fischer Lime & Cement Co.
Memphis
Texas—Fred Henderson
370 Wabash Ave., Fort Worth
Washington—Sam Hunter Co., Inc.
3155 Elliott Ave., Seattle
Wisconsin—Norman J. Pipkorn
796 Humboldt Ave., Milwaukee



Postman deposits mail from outside, occupant takes it from box on inside and both are SURE that ALL mail will be received in good condition.



Cross Section of Mailo-Box showing how it is concealed in brick wall.



Cross Section of Mailo-Box showing how it is concealed in frame wall.



For further details and literature, write to:

PENN-GREG MANUFACTURING CO.

809-11 University Ave.
ST. PAUL, MINN.



A SAFETY-MAIL for EVERY HOME!

... from the "SINGLE SAFETY-MAIL" for one and two family houses . . neat, trim, sturdy, and SAFE; and easily installed by the average individual . . .

... to the MULTIPLE UNIT "SAFETY-MAIL" for apartment houses . . substantial, well-designed, attractive . . keeps the mail PERSONAL, away from the curious, and petty thief . . .

... and the "BUILT-IN SAFETY-MAIL" for brick, stucco, and frame houses, for papers, magazines, letters . . easily installed and adjustable to wall thicknesses.

Single box and apartment multiple units in solid brass front (polished or dull) and rust-proof back; with or without push button and speaking tube. "Built-in" units of cast bronze, cast aluminum, and wrought brass.



Prices Range From \$3.00 Per Unit Up
The "Safety-Mail" is endorsed by the United States Post Office Department.

Send for illustrated folder showing styles, dimensions, descriptions.



For further details and literature, write to:

THE UNIVERSAL PRESSED STEEL CO.,

Everett Station

Chelsea 0229

Boston, Mass.

COLONIAL HEAD THROAT & DAMPER

"GLO-HOT" ELECTRIC GRATE and

EVERYTHING FOR THE FIREPLACE: GRATES, ANDIRONS, FIRESETS
FENDERS, HOODS, SCREENS, ASH TRAPS, ASH PIT DOORS, ETC.

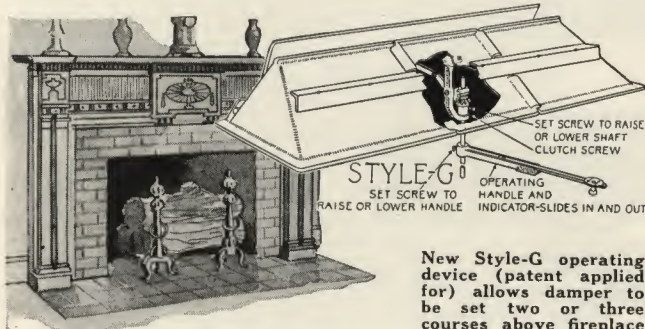
Manufactured by

COLONIAL FIREPLACE COMPANY

4652 Roosevelt Road, Chicago

MATERIALS AND CONSTRUCTION

The Colonial Head, Throat and Damper is built of best grey iron castings, bolted securely together and reinforced with steel angle bar. Is rigid, extra heavy and able to sustain great weight yet parts are free to take up heat expansion and thus avoid cracking fireplace front.

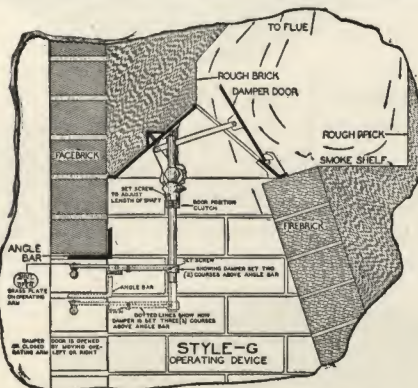


New Style-G operating device (patent applied for) allows damper to be set two or three courses above fireplace opening where best results are secured, or even higher with a longer rod.

GIVES NEW FIREPLACE SATISFACTION

The Colonial Damper has been recognized for over 20 years by architects, builders and home owners as unrivaled for its purpose. Its fundamental design has not been changed: the New Improved Operating

Device has only been added. This makes it possible for architects and home owners to get the best results by setting the fireplace damper high up in the throat.



Sectional view of new Style-G Colonial Damper showing method of operation and possible adjustments. With this operating device the Colonial Head may be set as high up in the throat as desired—the position so necessary to a proper working fireplace.

MORE HEAT—LESS FUEL—NO SMOKE

Embodies more than a quarter of a century of practical experience in erecting fireplaces throughout the United States. Controls draft perfectly when fireplace is properly designed and built, and throws heat into the room instead of up the chimney—in short, eliminates all the disagreeable features of the old fireplace and retains all its healthful ventilation, attractive charm and appealing romance.

SETS HIGH, LOW, FORWARD OR BACK

Never before has a damper been adjustable to all possible positions in a fireplace throat and to all forms of construction. Fits every fireplace: marble, stone, brick, wood, tile, etc., and every form of opening, square or arched. Also the only damper made that takes up heat expansion.

STYLES AND SIZES

Colonial Damper is made regularly in twelve sizes for fireplace openings from 20 in. to 72 in. and in three styles of operation.

The "Glo-Hot" Electric Fireplace Grate That Really Heats

Gives real fire effect and heats the room at the same time without the necessity of flues. A practical auxiliary heating plant that has no open flames and no fumes. Heat is absolutely odorless and clean. Comes complete ready to set in fireplace opening and connect with electric circuit.

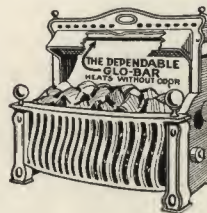


Number G H 261, three finishes: Black and Polished Steel, Old Brass and Statuary Bronze

Looks Like Live Coal Fire

Built to resemble an old English Hooded Grate. Controlled by three point electric switch. At the first snap of the switch the grate is flooded with a life like flicker of glowing coals. At the second snap of the switch, as if by magic, the heat flows out from the new patented "Glo-Bar" Heating Unit concealed under the hood. Heat is reflected from scientifically designed copper reflector which throws the heat rays straight into the room. Also ventilates perfectly by drawing cold air from the floor, carrying it up behind reflector, warming it and pouring it into the room through the port holes above the hood.

"Glo-Bar" Heating Unit Practically Indestructible



This patented heating unit will last for years. Is the first practical long lasting, economical heating unit produced by science. Gives instant heat and in ordinary use will last indefinitely.

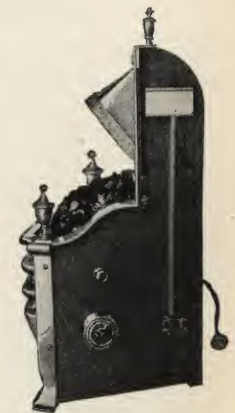
Fits Any Fireplace—No Flues Necessary

While the genuine fireplace with its flue and enchanting play of flame holds full sway, there are nevertheless many homes, new and old, where no flues are provided in the plans, or old asbestos grates where the flue is insufficient to carry off the fumes. The Glo-Hot Electric Grate meets this need, since it requires no flue and comes closer to the effect of a real fireplace than ever attained before.

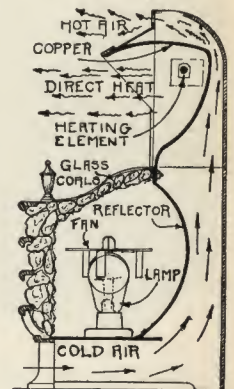
The cost of operation is low compared with any type of auxiliary heating where a flue is used for the escape of smoke or gases and consequently waste of heat.

Dimensions, Styles and Sizes

The Glo-Hot is 24 in. wide, 22 in. high and 12 in. deep. Comes in three styles and finishes and three capacities, standard being 1,000 watts—110 volts.



Showing switch, plug and wiring connection. Circular door (on both sides) gives access to electric bulbs and fans.



Cross Section View showing details of construction and air space between copper reflector and back. Steady circulation drives hot air into the room.



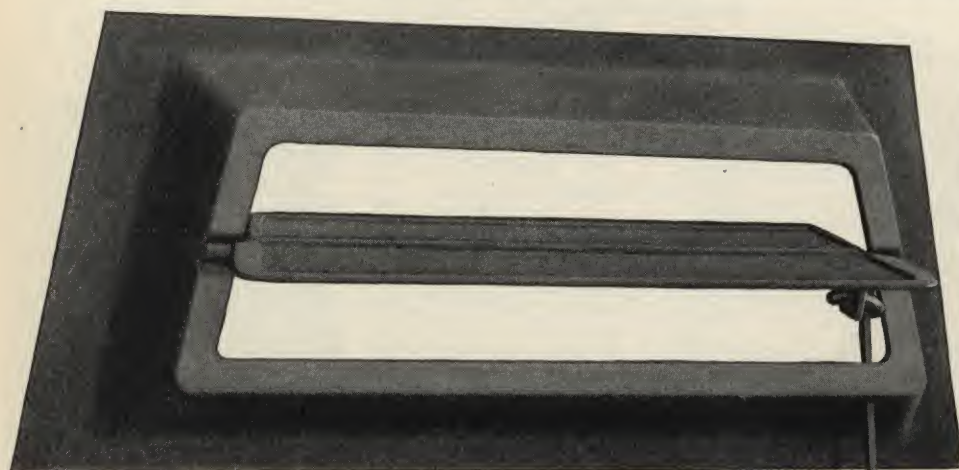
For further details and literature, write to:

COLONIAL FIREPLACE COMPANY

4652 Roosevelt Road
CHICAGO

CONNOR FOUNDRY COMPANY, Inc.

MICHIGAN'S LARGEST MANUFACTURERS OF FIREPLACE
EQUIPMENT AND BUILDING SPECIALTIES



The Connor Simplicity Dome Damper

Only four distinct parts in its construction. No lost parts, no screws to misplace. The fact that all intricate mechanism is eliminated and that four distinct parts are all that is necessary in its construction is evidence of superiority in design. Then, too, this permits easy installation and operation, which is a welcome part of both builder and consumer.

NOTE: Measurement of damper is taken from the extreme outside and has extra deep smoke pocket which tends to carry the smoke up the chimney rather than out into the room.

| | | List Price |
|------------------|---------------------------------|------------|
| Size, 28 inches. | Shipping weight, 38 pounds..... | \$ 8.00 |
| Size, 34 inches. | Shipping weight, 45 pounds..... | 9.00 |
| Size, 40 inches. | Shipping weight, 50 pounds..... | 10.00 |
| Size, 46 inches. | Shipping weight, 68 pounds..... | 11.00 |
| Size, 52 inches. | Shipping weight, 60 pounds..... | 14.00 |

Furnished either front or under-control.



Note the Simple Construction



Connor Cast Coal Chute

Wall opening: Width, 24 inches; height, 17 inches. Depth, 10 inches. Weight complete, 55 pounds.

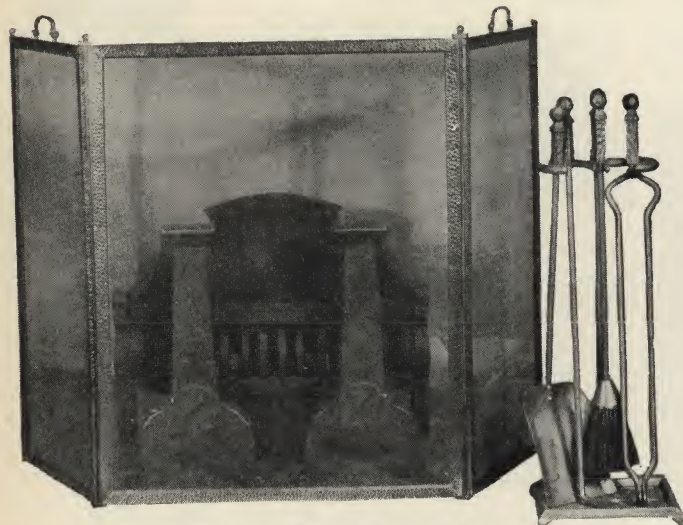
List Price\$11.00



Manhole Frames and Covers

| No. Opening Size | Weight | List Price |
|---|----------|---------------|
| M102 18" Heavy Solid Cover..... | 102 lbs. | \$12.50 |
| M180 24" Solid or Slot Cover..... | 180 lbs. | 24.00 |
| M350 30" Heavy Solid Cover..... | 350 lbs. | 36.00 |
| M490 24" Heavy Street Perforated Cover..... | 490 lbs. | 28.00 |

Locking Device Extra—\$2.00 Net



Connor Special No. 3

Same Screen furnished in four-fold if desired.

| | List Price |
|---|------------|
| Three-Fold Screen 031-30 or 0310-30 A. B..... | \$16.00 |
| Fireset and Brush 1481 A. B..... | 15.50 |
| Firebasket, 22-inch..... | 10.00 |
| Andirons 247 A. B..... | 8.50 |

LESS THAN SIX ITEMS, ADD 50c CRATING CHARGE



No. 101 Spanish Design Firebasket—Shaker Bottom

This Clam Shell Firebasket design is the latest in fireplace equipment. The main feature of this basket is the back piece. It has been designed to arch over across one-third of the width of the basket to throw the heat out into the room instead of up the chimney. Dimensions: Height, 17 inches; width, 27½ inches; depth, 10½ inches. Weight, 64 pounds.

| | List Price |
|--|------------|
| No. 101-B—Spanish Basket, Black..... | \$20.00 |
| No. 101-B—Spanish Antique Brass Front..... | 25.00 |



For further details and
literature, write to:

CONNOR FOUNDRY COMPANY, Inc., Grand Rapids, Mich.

COVERT FIREPLACE SPECIALTIES

Made By

THE H. W. COVERT COMPANY

243 East 44th Street, New York



Covert Specialties Assembled in Fireplace

Flue:

The flue should be properly proportioned to the size of the fireplace opening. A safe rule to follow in fireplace construction is to make the cross sectional area of the inside of the flue lining one-tenth to one-twelfth the area of the fireplace opening. It is always better to have the flue too large rather than too small.

Size of Opening:

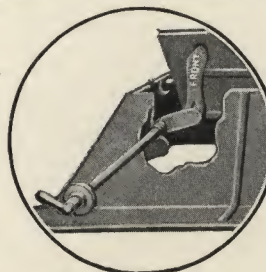
A height of 30 inches is sufficient for fireplaces up to 48 inches wide with a proportionate increase in height for wider fireplaces. The depth should be 18 or 20 inches for fireplaces up to 48 inches wide and never more than 24 inches deep for wider fireplaces. The back of the fireplace should be narrower than the front, the side walls sloping towards the back wall at a ratio of about 5 inches to each foot of depth.

Covert Improved Damper:

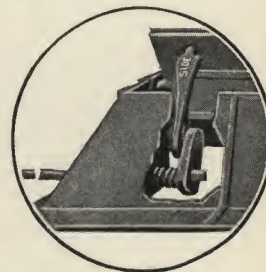


This damper is very popular with contractors and builders because of its simplicity and the excellence of its design and construction. The valve plate is made of unbreakable steel, is easily removable, and is controlled by a simple ratchet placed just under the center of the arch. The damper is made in convenient sizes up to 5 feet.

Covert "Face or Side Control" Damper:



Front Operation



Side Operation

This damper is designed to operate from either the front or side of the fireplace by a single turn of a polished brass knob. The mechanism is very simple, having no worm or gear. All parts are easy to get at. It is made in all sizes up to four feet.

Covert Old Style Dampers:

These are made in four different depths and up to seven feet long for very large fireplaces. All shown in our complete catalog.

Covert Ash Dump:

For installation in the hearth to permit ashes to be dropped through pit into cellar.

Covert Cleanout Door:

For installing in cellar wall to permit of easy removal of ashes from pit.

Other Covert Specialties:

Garbage Receptacles, Foundation and Grade Line Coal Chutes, Coal Hole Covers, Cleanout Doors, Ash Dumps, Franklin Fireplaces.

How to Build an Efficient Fireplace:

There are three vital parts in fireplace construction—the Throat, Smoke Chamber and Flue. If these are properly constructed, the fireplace will function satisfactorily in every way, barring the influence that nearby high buildings or high walls may have upon it.

Throat:

The construction of this most important part of a fireplace is simplified through the use of a Covert Damper.

In addition to acting as a support for the arch brick, Covert Dampers provide a properly designed, smooth and substantial Throat that will lead all smoke and gases up the flue. It is provided with a valve to control draft. Covert construction secures the ledge or windsheaf at the back of the throat which is important in checking down drafts.

Smoke Chamber:

It is important that the side walls of the Smoke Chamber, which is above the throat, should be smooth and should narrow from bottom to top where the flue proper begins, at the proper angle to afford a smooth chamber or compartment through which all smoke and hot gases will travel into the flue without being retarded.

This construction is best accomplished by using the Covert Smoke Chamber which is a steel form affording perfectly smooth side walls sloped at the proper angle, and with a collar at the top upon which the tile flue is started.

The use of this form saves considerable in mason's time in forming properly sloped walls in brick work, besides adding greatly to the efficiency of the fireplace.



For further details and literature, write to:

THE H. W. COVERT COMPANY, New York City

243 E. 44th St.
NEW YORK

Gabriel Rolled Steel Products

Manufactured by
GABRIEL STEEL COMPANY
2441 Bellevue Ave., Detroit, Michigan

Products

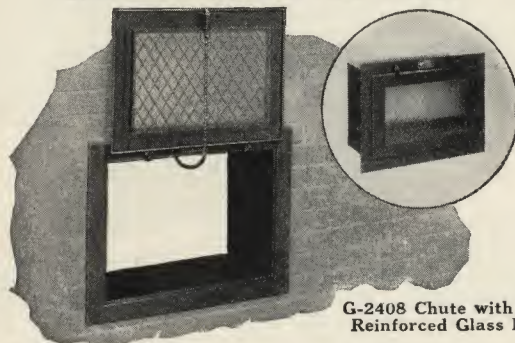
Coal Chutes—Package Receivers—Dome Dampers—Ash Pit Doors—Ash Dumps—Scaffold Brackets—Scaffold Horse Legs—Inserts—Steel Floor Joists.

Quality, Construction and Guarantee

All Gabriel Products are constructed of special rolled steel, making them practically unbreakable. All joints are electrically welded. Pressed metal and cast construction have been eliminated. This insures durability, exceptional service and long life. Comparison shows Gabriel quality.

Gabriel rolled steel products are guaranteed to be 100% satisfactory. Large production, efficient inspection and supervision permit a surprisingly low price.

Gabriel Rolled Steel Coal Chutes

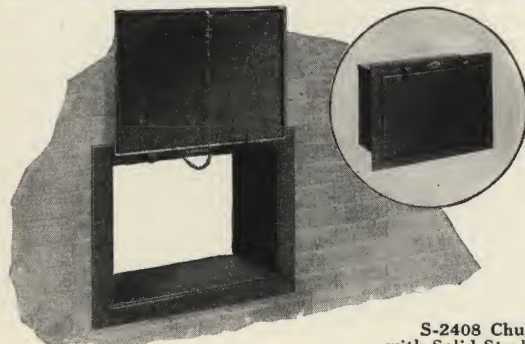


G-2408 Chute with Wire Reinforced Glass Door

The Gabriel Coal Chute is neat and attractive in appearance. Made of rust resisting copper bearing steel which eliminates broken hinges, doors or frames. Joints are electrically welded throughout. Hinges are of very heavy rolled steel and designed to hold the door in a vertical position when open. Automatic spring latch is made of heavy rolled steel. Doors are opened automatically by release of catch, and lock positively when closed from outside. Hopper is easily attached or removed, and is designed to lie perfectly flat on bottom of chute when not in use. Equipped with roller and chain attachment which permits operation from any point desired. All operating parts are Parkerized to insure against rust.

Furnished either with rolled steel or glazed door. In the glazed doors, 1/4-in. glass is attached by means of special glazing clips. Glass is bedded and face puttied and protected on the inside by heavy wire guard.

Sizes: 16x24 and 22x32 in. for 8, 12 1/2 and 17-in. walls.



S-2408 Chute with Solid Steel Door

Gabriel Ash Dump

The Gabriel ash dump is unbreakable, with an unremovable leaf. Frame is electrically welded, and heavy enough to withstand any usage. It is very neat in appearance and will not warp or twist with use. Made in one size only, 5x7 in.



Gabriel Ash Dump

GABRIEL
ROLLED STEEL
PRODUCTS

Gabriel Rolled Steel Dome Damper

The Gabriel dome damper accurately controls the draft, promotes cleanliness, saves fuel and is conveniently operated. Its vertical front flange permits its use regardless of the construction of the fireplace facing.

It is substantially constructed, operated with ease, stays in position and can be had for handle, poker, chain, or push rod operation.

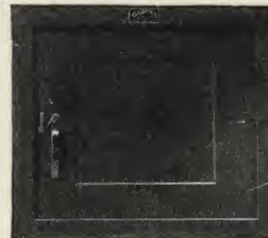
Furnished in five sizes: 24, 30, 36, 42 and 48 inches, with or without horizontal



Dome Damper for Fireplaces, showing handle operator

Gabriel Package Receiver

Neat, inconspicuous and weathertight. Design and quality insure satisfactory operation year after year. Made of heavy copper bearing steel plate, with two latched doors—one outside and one inside. Handles designed to permit installation in an inverted position, if necessary. All movable working parts are Parkerized to insure against rust. Made for 12x14-in. wall opening. Width permits installation between studs of standard spacing, 16-in. on centers. Body of receiver is made in three depths: 5, 9 and 13-in.



Package Receiver Inside Door

Gabriel Ash Pit Door

Made entirely of rust-resisting, rolled steel. Door and frame are true fitting, insuring practically an airtight closure. Frame of door is electrically welded and door is a single piece of heavy rolled steel plate.

A deep lug anchor is turned up at each of the four corners to insure secure anchorage in chimney.

The hinges and keeper are practically unbreakable.

Made in four sizes: 8x8, 8x10, 10x12 and 12x16 inches.

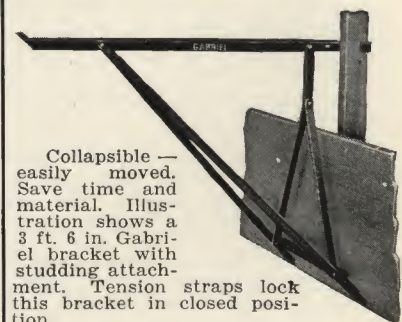


Ash Pit Door

Gabriel Rolled Steel Joists

Gabriel joists are designed especially for floor construction in all types of light occupancy buildings. Adaptable to either wood or concrete flooring. Constructed from rolled steel sections, rigidly connected at the joints by electric arc welding. Weigh only approximately half as much as wooden joists of equal strength and are quickly and economically placed. Increase fire resistance and safety. Furnished in any length from 5'0" to 30'0". For complete description write for our Joist catalog.

Gabriel Scaffold Brackets



Collapsible — easily moved. Save time and material. Illustration shows a 3 ft. 6 in. Gabriel bracket with studding attachment. Tension straps lock this bracket in closed position.



For further details and literature write to:

GABRIEL STEEL COMPANY

2441 Bellevue Avenue
Detroit, Mich.

HEATILATOR Fireplace Unit

Manufactured by the

HEATILATOR COMPANY

Syracuse, N. Y.

Heatilator Fireplace Unit

Fireplace Success with Double Heat Guaranteed

The Heatilator is a practical, proved, guaranteed device which completely removes doubt about whether a new fireplace will draw well and burn without smoking, and which also gives double heat from same fuel. In other words, it positively assures proper fireplace construction and successful operation, and at the same time makes the fireplace a source of new heat and comfort.

What the Heatilator Is

The Heatilator is a heavy boiler plate form—a ready-built fireplace, complete up to the chimney flue—intended to be installed in any ornamental material desired, such as brick, tile or stone. Its scientific design assures perfect, smokeless operation of the completed fireplace. In addition, it creates a new source of heat. It has *double walls* that act as a heating chamber over and around the fire. Cold air from the floor (or from a cold-air box) comes into this chamber, is heated, and returned to the room through openings in the front or sides of the mantel above the fireplace. Heat hitherto wasted in brickwork or up the chimney is thus utilized. It equals in volume the heat of a warm air furnace register. In fact, the Heatilator is the same in heating principle as a furnace.

Fireplace Charm with Furnace-like Heat

A fireplace equipped with a Heatilator looks like any well-designed fireplace except that inconspicuously in the sides or front are

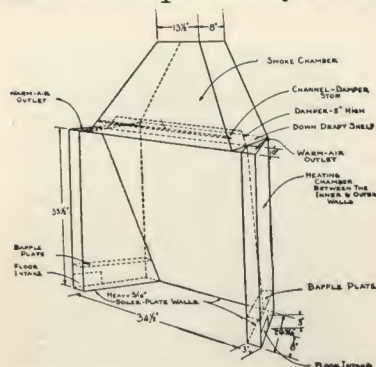
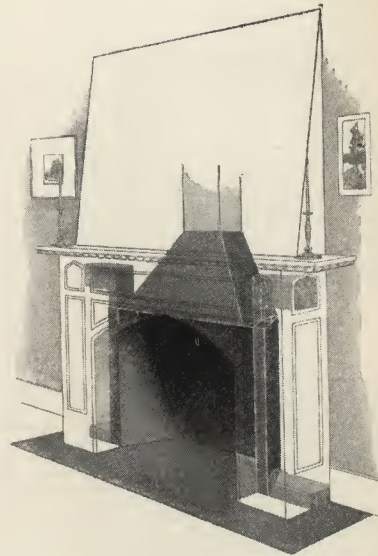


Diagram showing standard size Heatilator as shipped, ready to install. Special sizes can be made at reasonable cost. The form is 14-gauge copperoid iron. All seams electrically welded. Heatilators are fully protected by patents.

Phantom view showing Heatilator installed. Note how fire box walls are shaped to give maximum heat radiation, and how the double-wall construction forms an extra warm air chamber over and around the fire, where waste heat is saved and sent into the room. In this drawing the cold air intakes and warm air outlets are in the sides of the fireplace. These openings may be located anywhere in the sides or front, and covered with open masonry or handsome metal grilles to harmonize with the design of the mantel. The air boxes may be of metal, but generally they are part of the masonry, a few bricks sufficing to form them.



openings for the cold and warm air. These openings may be covered with open masonry or handsome metal grilles.

Saves Its Cost

The Heatilator is a complete unit. No fire-brick are needed, no smoke chamber need be built, no damper need be bought. Where the Heatilator is installed, enough labor, material and fuel are saved to more than pay the cost. Any mason can install in a few hours, with guaranteed assurance of perfect fireplace satisfaction.

Fully Guaranteed

We guarantee complete satisfaction or money back and in case of dissatisfaction are willing to pay removal and return costs up to \$20.

Widely Advertised

Large and influential national publications carry Heatilator advertising. People are looking for Heatilators as a mark of comfort, satisfaction and modernity. Heatilators increase ownership and resale values.

"Plan Book of Modern Fireplaces"

This book, containing many modern fireplace designs, is offered without charge.

For prices, and Plan Book, write to The Heatilator Company, 810 Glen Ave., Colvin Sta., Syracuse, N. Y.



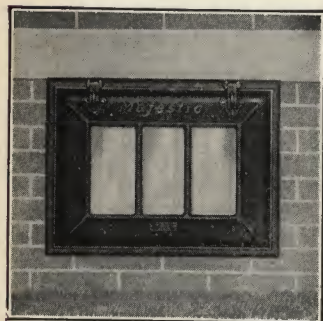
For further details and literature, write to:

HEATILATOR COMPANY, Syracuse, N. Y.

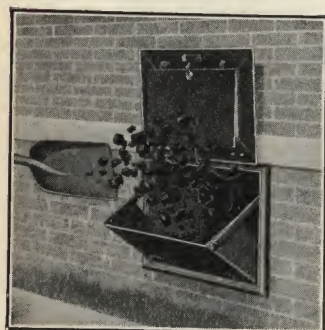


MAJESTIC COAL WINDOW

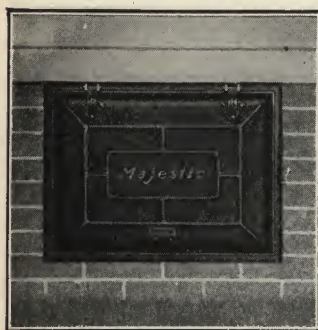
Made by
THE MAJESTIC COMPANY
1800 Erie Street
HUNTINGTON, INDIANA



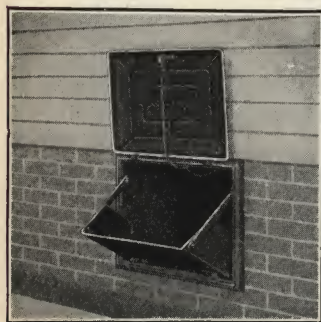
Glass Panel Styles Closed



Glass Panel Styles Open



Steel Door Styles Closed

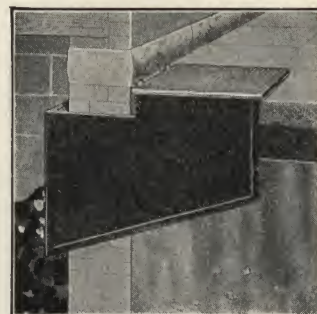


Steel Door Styles Open

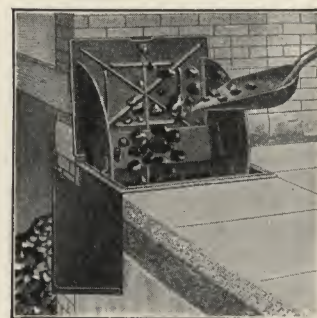
The Majestic is the recognized leader of all coal windows—the standard of quality and value—made of Certified Malleable Iron, Keystone Copper Steel and heavy pressed steel, electro-galvanized—guaranteed break-proof and rust proofed. No better design or construction is known. Majestic is the last word in a coal window—made by the oldest and largest coal window manufacturer. More Majestics are in use than all other makes of coal windows combined.

All doors are of heavy pressed steel. Frames of all types are Certified Malleable Iron. Frame and door fit snugly—thoroughly weatherproof. Hinges are Certified Malleable Iron and are flat with double support, making it unnecessary to cut water table to provide clearance. Bodies and hoppers are Keystone Copper Steel. Angle Iron reinforcement allows masonry to be laid directly on body without use of lintel. Locks are automatic and burglar-proof. Unlatch from inside only by extended chain.

A Majestic Coal Window is a necessity in every well built home. It saves its initial cost in the protection it gives the building. When raised the door of the Majestic holds itself open automatically, guarding the building above from damage from flying coal. In the Glass Panel type a steel shield automatically covers the glass when the door is open. This type has three lights of heavy plate glass reinforced by metal strips and set in rubber to prevent breakage. Other types are the Solid Steel Door, Grade Line and Store Chutes—all illustrated on this page.



Grade Line Chute Closed



Grade Line Chute Open

Majestic Coal Windows, Pressed Steel Doors

| No. | Style | Wall Opening | | | Ship. Wt. | List Price |
|------|-------|--------------|------|------|-----------|------------|
| | | Wide | High | Deep | | |
| M101 | B | 23" | 17" | 12" | 51 | \$12.00 |
| M101 | D | 23" | 17" | 12" | 40 | 10.50 |
| M203 | B | 32" | 22" | 17" | 105 | 24.00 |
| M203 | D | 32" | 22" | 17" | 87 | 21.30 |
| M500 | ..... | 23" | 17" | 9" | 35 | 9.00 |
| M520 | ..... | 32" | 22" | 12" | 71 | 18.00 |

(Style B is with Hopper—Style D without Hopper)

Majestic Coal Windows, Glass Panel Doors

| No. | Style | Wall Opening | | | Ship. Wt. | List Price |
|------|-------|--------------|------|------|-----------|------------|
| | | Wide | High | Deep | | |
| M 10 | A | 23" | 17" | 12" | 60 | \$15.00 |
| M 10 | C | 23" | 17" | 12" | 50 | 13.50 |
| M 20 | A | 32" | 22" | 17" | 119 | 27.00 |
| M 20 | C | 32" | 22" | 17" | 100 | 24.30 |
| M600 | ..... | 23" | 17" | 9" | 42 | 12.45 |
| M620 | ..... | 32" | 22" | 12" | 86 | 22.80 |

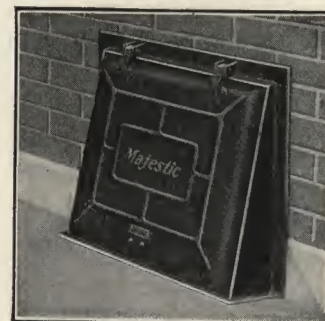
(Style A is with Hopper—Style C without Hopper)

Grade Line Coal Chutes

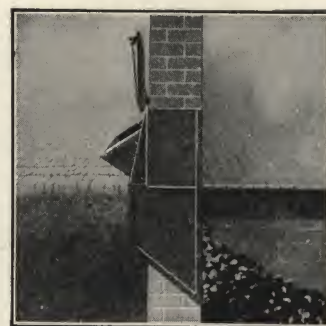
| No. | Door Opening | Wall Opening | | Ship. Wt. | List Price |
|-----|--------------|--------------|------|-----------|------------|
| | | Wide | High | | |
| M16 | 23½" x 18½" | 25" | 25" | 135 | \$33.00 |
| M18 | 29" x 24" | 31" | 31" | 200 | 48.00 |

Store Coal Chutes

| No. | Door Opening | Wall Opening | | Ship. Wt. | List Price | |
|-----|--------------|--------------|-------------|-----------|-------------|----------------|
| | | Above Grade | Below Grade | | With Hopper | Without Hopper |
| M12 | 21" x 15" | 23" x 16¾" | 23" x 25" | 105 | \$33.00 | \$31.50 |
| M15 | 29" x 19½" | 31" x 21½" | 31" x 24½" | 151 | 48.00 | 45.30 |



Store Chute Closed



Store Chute Open



For further details and literature write to:

HOME BUILDERS CATALOG

THE MAJESTIC COMPANY

1800 Erie Street,
Huntington, Ind.

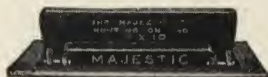
See Next Page

OTHER MAJESTIC QUALITY PRODUCTS (Continued)



Underground Garbage Receiver

The modern, sanitary solution of the garbage problem. Keeps the garbage underground, out of sight, odorless, away from flies and animals. Endorsed by health authorities everywhere. Easily installed in ground—near kitchen door if desired. Lid is opened by pressure of foot, garbage dropped into can and foot pressure released, lid snapping tightly shut. Majestic Underground Garbage Receiver adds a pronounced touch of quality and convenience to the modern home. A real sales asset for homes built to sell.



Fireplace Ash Dump

Lid is permanently hinged to the frame so that it cannot fall out. The ash dump is essential to any fireplace. Keeps dust and odors from the room and permits ashes to drop to base of chimney.



Flue Clean Out Door

Made of highest quality cast iron, hand fitted. Malleable iron turn key and latch that locks the door securely. Anchor irons fold flat. Four sizes—twelve of each size to a crate. The No. 1012 is large enough for use as an ash pit door.



Ash Pit Door

Majestic Ash Pit Doors are built to fit closely and securely. Made of heavy cast iron with simple, effective latch. Hinges are sturdy. Made in two sizes—12" x 15" and 15" x 15".

Underground Garbage Receivers

| No. | Can Capacity | Shipping Weight | | List Price | |
|-----|--------------|-----------------|----------|------------|----------|
| | | Plain Can | Witt Can | Plain Can | Witt Can |
| 5 | 5 gal. | 31 | 35 | \$ 7.80 | \$ 8.70 |
| 8 | 8 gal. | 48 | 53 | 9.90 | 11.10 |
| 12 | 12 gal. | 54 | 60 | 10.80 | 12.60 |
| 15 | 15 gal. | 60 | 66 | 11.40 | 15.90 |
| 20 | 20 gal. | 92 | 99 | 14.70 | 19.90 |

Milk and Package Receivers

| No. | For Wall Thickness | Ship. Wt. | Price |
|-----|--------------------|-----------|--------|
| 1 | 5 in. to 8 in. | 45 | \$9.75 |
| 2 | 8 in. to 14 in. | 49 | 9.90 |

Fireplace Dampers

| No. | Width Fireplace Finished Opening | Ship. Wt. | List Price |
|-----|----------------------------------|-----------|------------|
| 26 | 26 inches | 45 | \$ 7.90 |
| 30 | 30 inches | 52 | 8.50 |
| 34 | 34 inches | 59 | 9.20 |
| 38 | 38 inches | 66 | 10.00 |
| 42 | 42 inches | 70 | 11.00 |
| 46 | 46 inches | 75 | 12.00 |
| 50 | 50 inches | 81 | 13.00 |
| 54 | 54 inches | 89 | 14.00 |
| 60 | 60 inches | 90 | 15.50 |

Fireplace Ash Dumps

| No. | Outside | Inside | Shipping Wt. Doz. | List Price |
|-----|-----------|---------|-------------------|------------|
| 6 | 8" x 8" | 6" x 6" | 45 | \$0.99 |
| 8 | 10" x 10" | 8" x 8" | 60 | 1.20 |
| 9 | 6" x 9" | 4" x 7" | 38 | .81 |
| 10 | 7" x 10" | 5" x 8" | 46 | .99 |

Cast Iron Flue Thimbles

| Size of Smoke Collars | Size Overall | Weight Each | List Price |
|-----------------------|--------------|-------------|------------|
| 5" | 5½" | 3½ | \$0.75 |
| 6" | 6½" | 4¾ | .81 |
| 7" | 7½" | 5 | .87 |
| 8" | 8½" | 5¼ | .93 |
| 9" | 9½" | 6¼ | 1.29 |
| 10" | 10½" | 9 | 1.38 |
| 12" | 12½" | 10 | 1.80 |

Flue Clean-Outs

| No. | Size | Shipping Weight Dozen | List Price |
|------|-----------|-----------------------|------------|
| 88 | 8" x 8" | 85 | \$1.20 |
| 810 | 10" x 8" | 92 | 1.40 |
| 812 | 12" x 8" | 125 | 1.70 |
| 1012 | 12" x 10" | 180 | 2.00 |

Ash Pit Doors

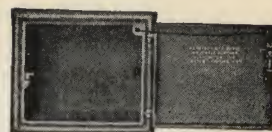
| Size | Frame | Door | Shipping Weight | List Price |
|-----------|-------|------|-----------------|------------|
| 12" x 15" | Cast | Cast | 23 | \$4.80 |
| 15" x 15" | Cast | Cast | 35 | 6.00 |

Cistern Rings and Covers

| Inside Diameter | Outside Diameter | Weight Each, Lbs. | List Price |
|-----------------|------------------|-------------------|------------|
| 18" | 24" | 45 | \$5.70 |
| 20" | 26" | 56 | 6.60 |
| 22" | 29" | 70 | 7.80 |
| 24" | 31" | 88 | 9.00 |

Cellar Wall Grates

| Size | Weight, Each | List Price |
|-----------|--------------|------------|
| 4" x 8" | 2 | \$0.39 |
| 6" x 8" | 3 | .54 |
| 6" x 12" | 4 | .75 |
| 8" x 8" | 4 | .66 |
| 8" x 12" | 5 | .84 |
| 10" x 16" | 5½ | .93 |
| 10" x 12" | 6½ | 1.11 |
| 10" x 16" | 10½ | 1.65 |



Milk and Package Receiver

Majestic Milk and Package Receiver is a convenience that costs but little and adds tremendously to the value of a home. Protects from annoyance, intrusion and theft in the delivery of packages. Deliveryman places packages in Receiver from outside, and closes door which locks automatically. Housewife removes deliveries from inside door at her convenience. Receiver consists of two cast iron frames and doors connected with an adjustable steel body. Easily installed in any wall—old or new—either frame or brick. A product that will help you sell homes you build.



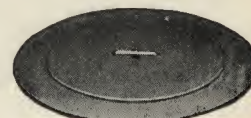
Fireplace Damper

To insure complete satisfaction every fireplace should have a Majestic Fireplace Damper. These dampers are designed on the one correct fireplace damper principle. They give perfect draft control and do not get out of order. Made with lintel integral with frame of the damper so that distance from top of opening of the fireplace to top of throat *must* be correct. Supplied in several types. Complete instructions for building fireplace and installing damper supplied with each shipment.



Cast Iron Flue Thimble

The Majestic Flue Thimble is installed in masonry of chimney to carry furnace smoke pipe. The pipe fits snugly inside the collar of the Flue Thimble and may be easily removed for cleaning.



Cistern Ring and Cover

Used for cisterns, cesspools, and other underground receptacles. Consists of heavy circular cast iron rim and cover. Cover is flush and has drop handle for easy lifting. Made in four sizes, ranging from 18 inches to 24 inches in diameter.



Cellar Wall Grate

A means of safe ventilation for basements. Fit securely and are neat in appearance. Made of heavy cast iron. Eight sizes.



For further details and literature write to:

THE MAJESTIC COMPANY

1800 Erie Street,
Huntington, Ind.

PEERLESS FIREPLACE DAMPERS

Made by
PEERLESS MANUFACTURING COMPANY
 Louisville, Ky.

"As Important in the Home as the Furnace or the Windows"



"What Is a Dome Damper?"

A Dome Damper is a metal dome and door built into a fireplace just above the opening so as to form a scientifically constructed throat. It must be installed when the fireplace is first built.

"Why Should a Fireplace Have a Damper?"

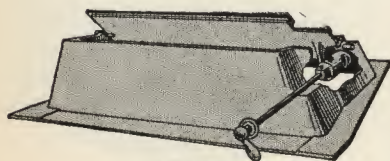
Every fireplace should be equipped with a Dome Damper for the following reasons:

1. To insure a perfect draft while operating a fire.
2. To eliminate, by closing the damper door, a tremendous loss of heat and unhealthy drafts when the fireplace is idle.
3. To eliminate the necessity of closing the flue with paper and rags in summer time, and also to shut off completely dirt, rain, soot, and insects which so often come through the chimney opening, both in summer and winter when the fireplace is not in use.

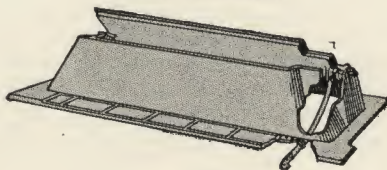
"Why a Peerless Dome Damper?"

A Peerless Dome Damper is operated by any one of the three styles of control as illustrated below. It is constructed of heavy stove plate cast iron and will wear a life time. It will not warp after being set as will sheet iron dampers. The operating attachments are all on the side of the damper in a specially constructed pocket protected from the fire and smoke travel.

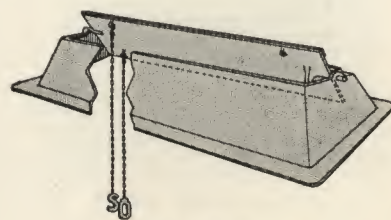
Styles and Sizes



"A" Damper
 (Heavy Weight)
 3 Styles of Control
 (View shows face control)



"B" Damper
 (Medium weight)
 3 Styles of Control
 (View shows underslung ratchet control)



"C" Damper
 (Light weight)
 3 Styles of Control
 (View shows chain control)

| | Face, Underslung Ratchet or Chain Control | | | | | | | | | | | Face, Underslung Ratchet or Chain Control | | | | | | Chain Control Only | | |
|--|---|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|--------------------|------|------|
| Number..... | A-24 | A-28 | A-30 | A-33 | A-36 | A-39 | A-42 | A-48 | A-54 | A-60 | A-68 | B-24 | B-28 | B-30 | B-36 | B-42 | B-48 | C-24 | C-30 | C-36 |
| For Finished Fireplace Opening, Ins..... | 24 | 28 | 30 | 33 | 36 | 39 | 42 | 48 | 54 | 60 | *68 | 24 | 28 | 30 | 36 | 42 | 48 | 24 | 30 | 36 |
| Overall Length, Ins..... | 28 | 32 | 34 | 37 | 40 | 43 | 46 | 52 | 58 | 64 | 72 | 28 | 32 | 34 | 40 | 46 | 52 | 28 | 34 | 40 |
| Overall Depth, Ins..... | 15½ | 15½ | 15½ | 15½ | 15½ | 15½ | 15½ | 15½ | 15½ | 17½ | 19½ | 13¾ | 13¾ | 13¾ | 13¾ | 13¾ | 13¾ | 11½ | 11½ | 11½ |
| Crated Weight, Each, Lbs..... | 38 | 40 | 45 | 50 | 55 | 61 | 65 | 68 | 85 | 100 | 189 | 37 | 39 | 43 | 48 | 54 | 64 | 26 | 30 | 32 |

*Chain Control Only.

*Chain Control Only.



For further details and literature, write to:

PEERLESS MANUFACTURING COMPANY, Louisville, Ky.

PEERLESS HOME EQUIPMENT

Fireplace Furniture

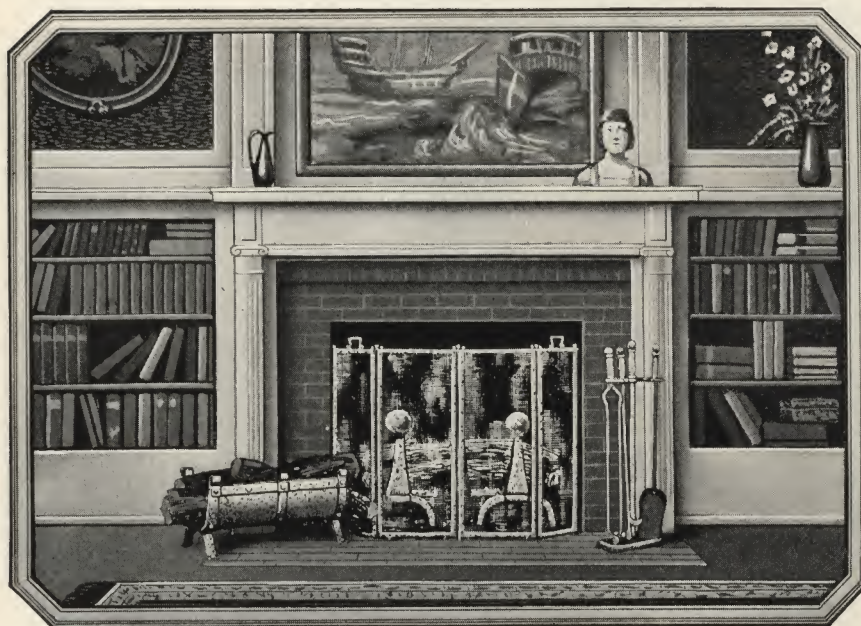
Radiant Gas Heaters

Coal Windows

Ash Pit Doors

Garbage Receivers

Ash Traps



Peerless Fireplace Furniture

The inside of the fireplace correctly built with a Peerless Dome Damper will do its work properly and will be a source of enjoyment for years to come.

But the outside is constantly a source of attention and it must be attractive. And to make it so, it must be properly equipped with Andirons, Basket, Fire Set, Screen and Fender. There are many different types of mantels and fireplaces, each requiring a certain type and design of equipment. The extensive variety of Peerless Fireplace Furniture fills every need and at a reasonable price. The Complete Line, includes Andirons, Baskets, Fire Screens, Fire Sets, Coal Hods, Wood Holders, Grates and other Accessories.

Peerless Coal Windows

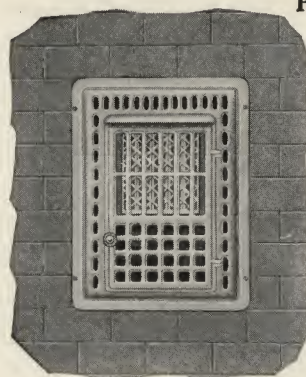
A Peerless Coal Window is a necessary convenience in every home. It replaces the former unsightly, battered window with an unbreakable metal window of neat appearance. When the door is raised for use, the building is protected from flying lumps of coal. When closed, it is made burglar proof by an automatic catch. It can be operated from the room above without going into the basement.



| | | | |
|--------------------|---------|---------|-------|
| No. 2 | Width | Height | Depth |
| Extreme Dimensions | 25 1/4" | 19 1/2" | 12" |
| Wall Opening | 24" | 17 1/2" | |

Peerless Wall Type Heaters

A Heater which is built into the wall and takes up no floor space whatever. Especially desirable for bathrooms and other small rooms where space is limited. It is heavily insulated, thus eliminating the danger of fire. Complete air circulation does away with gassy odors. Beautifully finished in white porcelain enamel which will look well in any setting. 5 Radiants. One-piece cast adjustable burner.



No. 400 Wall Type Heater

| | | | |
|--------------------|-------|---------|--------|
| | Width | Height | Depth |
| Extreme Dimensions | 16" | 20 3/4" | 6 3/4" |
| Wall Opening | 14" | 18 3/4" | 4 1/2" |

Also a Complete Line of Portable and Grate Type Radiant Gas Heaters

Peerless Ash Pit Doors

Peerless Ash Pit Doors are made of heavy cast iron in all standard sizes. Black Japan finish. Doors and frames are carefully ground to make them dust tight. Used at bottom of ash pits through which ashes are removed or at bottom of flues to clean out soot.

| | | | |
|-------------------------------|-------|-------|-------|
| No. 3—Sizes of Door Openings: | | | |
| 5x7 | 8x8 | 8x10 | 10x12 |
| 12x16 | 14x20 | 16x24 | |



Peerless Ash Traps

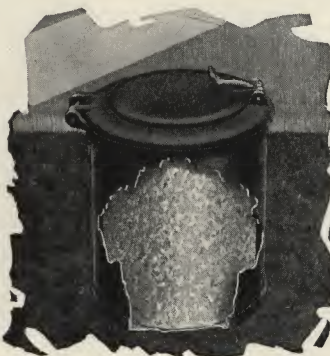
Peerless Ash Traps are made of heavy, high grade cast iron and in all standard sizes. They are placed in the bottom of the fireplace and the ashes are dumped through the trap into the ash pit below. Prevents ash dust flying over the room when ashes are being removed. A real convenience.

| | |
|-------|------------------|
| No. 8 | Size Outside |
| | 7"x10" or 9"x11" |



The Peerless In-the-Ground Garbage Receiver

A safe and sanitary method of garbage disposal. Consists of three parts. A steel outer casing which is placed in the ground; a cast iron top (the only part visible) and a heavy galvanized inner can. Lid is opened by means of a foot trip. Made in four sizes.



Sizes and Dimensions

| Can Capacity Gal. | Shell Diam. | Shell Depth | Top Diam. |
|-------------------|-------------|-------------|-----------|
| 8 | 16" | 14" | 16 3/4" |
| 12 | 16" | 20 1/2" | 16 3/4" |
| 15 | 16" | 25" | 16 3/4" |
| 20 | 19 1/4" | 25" | 20 1/2" |



For further details and literature, write to:

PEERLESS MANUFACTURING COMPANY, Louisville, Ky.

Jacobson Mantels and Ornaments

Manufactured by
JACOBSON MANTEL & ORNAMENT CO.
 Louis Geib Arthur P. Windolph
 322 East 44th Street, New York



A Reproduction of an Old English Mantel

JACOBSON Mantels are made of a special composition cast stone with which it is possible to obtain the exact effect of travertine, lime or caen stone. Color, texture and grain are all so perfectly simulated that the finished mantel is practically indistinguishable from one of natural stone.

Because of the ease with which this composition stone may be worked the most beautiful



A Reproduction of a Colonial Mantel

period mantels, with all their wealth of exquisitely carved detail, can be perfectly reproduced, and at a surprisingly modest cost. There are lovely designs that the average householder will find within his means.

Jacobson Mantels are available in a wide variety of exceptionally attractive stock designs, both period and modern, and are also made according to individual specifications. In view of the beauty and value these mantels add to the buildings in which they are placed, their cost is decidedly low. Installations can be made by any practical plasterer or tile setter.

Our interesting catalogue showing the numerous attractive designs in which Jacobson Mantels are available will be sent to Architects, Builders and Dealers on request.



Illustration Shows Overmantel, Grinling Gibbons Ornaments and Moulding Made of Compo

JACOBSON Ornaments are used to decorate woodwork and are made of Lignoid Compo. This material is applied to the raw wood with hot glue while still pliable and after drying it becomes thoroughly hard and permanent. The most beautiful and elaborate ornaments may be made of this Lignoid Compo, and we have a large assortment in stock which have been designed with strict adherence to the best work of Grinling Gibbons and the other master wood carvers of his period.



Window Cornices of Lignoid Compo



For further details and literature, write to:

JACOBSON MANTEL & ORNAMENT CO.

322 East 44th St.
 New York, N. Y.

Diamond Metal Weather Strip and Calking and Glazing Compound

Sales Agencies
in all principal
cities.

Made by
THE DIAMOND METAL WEATHER STRIP CO.
401 Spruce Street, Columbus, Ohio

Established 1909
Paid in Capital
\$50,000.

Products:

This company manufactures Diamond Metal Weather Strip, a scientifically designed and practical weatherstrip for installing on doors and windows. Also manufacture Diamond Calking and Glazing Compound for calking around window and door frames, pointing-up stone and stucco work, setting tile, etc.

Diamond Metal Weather Strip:

Advantages: This is quickly applied to the doors and windows in either new or old buildings at a moderate cost. Lasts practically as long as the building itself. More than pays for its cost and installation in the saving it effects in fuel consumption and preventing dust and dirt damage to decorations and furnishings.

Keeps cold air from entering the house around the edges of sash and under doors, thus keeping rooms at an even temperature in winter and saving from 20 to 40 percent in heating expense.

Keeps dust, dirt and storm from entering when windows and doors are closed. Prevents windows from rattling and makes the house quieter by deadening outside noise.

Weather strip is never in sight when door or window is closed.

Types Made:

There are six different types for double hung or sliding windows.

Five different types for doors.

Four different types for casement windows.

Special type for hollow metal sash and frames.

Materials:

Being made of zinc, spring bronze, brass and aluminum, they are rust-proof and long lived.

Manufacturing Facilities:

This company has been manufacturing and installing weatherstrips for 15 years. Thousands of buildings throughout the United States and Canada have been equipped. Special machinery produces a large volume of accurately-made weatherstrip. A high standard of efficiency is maintained both in the manufacturing and installing of Diamond Metal Weather strip.

Special Features:

Durability: Diamond metal weatherstrips are so designed and constructed that they overcome the



objections of sticking or binding, caused by the swelling, warping or shrinking of sash, and by the swelling of parting stops and dividing strips which are exposed to the weather.

Windows equipped with Diamond Metal Weatherstrips always raise or lower easily.

Removable: The runway or side strip for double hung sliding windows is made in two sections—a base with a fold-over under which the rib interlocks and is held in place by a screw and mitre at sill or top.

When it is necessary to remove sash to replace broken cord, take out screw. Only the stripping at one side need be removed. After rib is removed, if it is necessary to get into weight pocket this can be done without kinking or damage.

Guarantee:

All Diamond Weatherstrips are sold subject to a guarantee against imperfections in material and workmanship for a period of 10 years from date of installation.

Service:

A practical engineering department is at the service of contractors and builders for solving difficult or unusual problems in weatherstripping.

All material is applied by skilled mechanics under personal supervision of established company agencies.

Blueprint details, specifications and descriptive literature furnished contractors and builders on request.

A list of installations in any particular section of the country sent upon request.

Estimates:

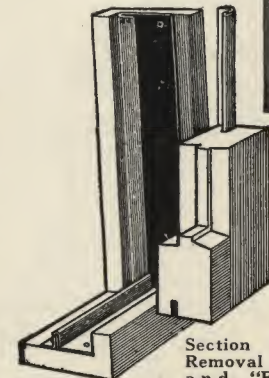
Will be promptly and cheerfully furnished by our nearest agency. Write home office for name and address.

Diamond Calking and Glazing Compound:

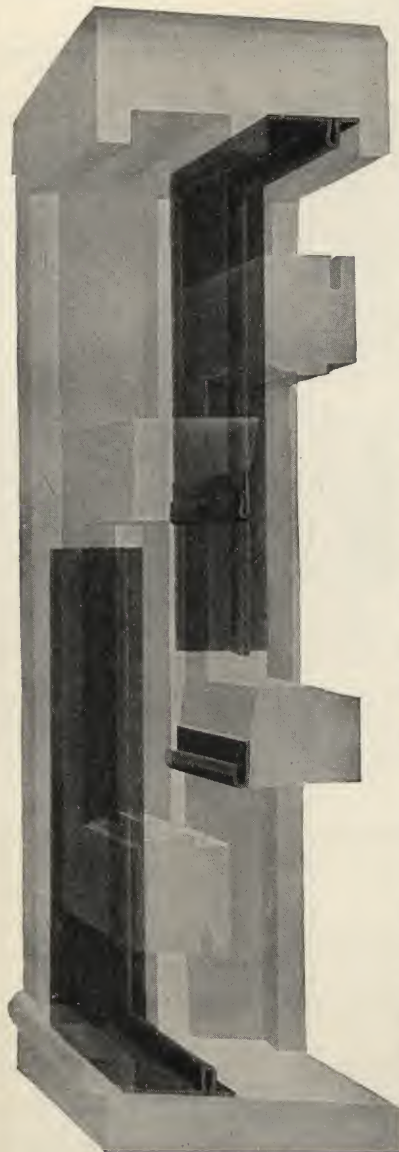
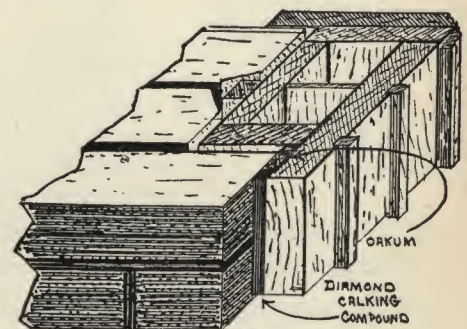
Uses: For calking around frames of windows and doors in new or old buildings, for bedding and glazing skylights and conservatories, pointing-up stone and stucco work, setting tile, etc. It will adhere to iron, steel, wood, glass, concrete or stone.

Advantages: Actually seals all openings permanently and lasts as long as the building. Does not break away or crack, dry or fall out of joints. Insures against dust, dirt or cold entering around window or door frames. Saves fuel by making tight joints wherever it is applied.

Packing, Color, etc.: It is gray in color and of the same consistency and general appearance as ordinary glazier's putty. Packed in 12½ and 25 pound pails, 50 and 100 pound kegs, half barrels (400 lbs.) and barrels (800 lbs.) Ask for literature and prices.



Section Showing Removal of Sash and "Flexible" Strip at the same time.



X-Ray View of Window Showing Diamond Weather Strip Installed.



For further details and literature, write to:

THE DIAMOND METAL WEATHER STRIP CO., Columbus, Ohio

ACCURATE METAL WEATHER STRIPS

Manufactured by
ACCURATE METAL WEATHER STRIP CO.
 208 E. 26th St., New York, N. Y.

Representatives in all Principal Cities

Products

ACCURATE METAL WEATHER STRIPS for all types of windows and doors.

Special equipment for hollow metal and metal covered windows; Brass Thresholds, Saddles, Channel Bar, Spring Bronze and Dust Plates.

Accurate Metal Weather Strip

Accurate metal weather strips are made exclusively of special hard rolled sheet zinc, brass, bronze and copper.

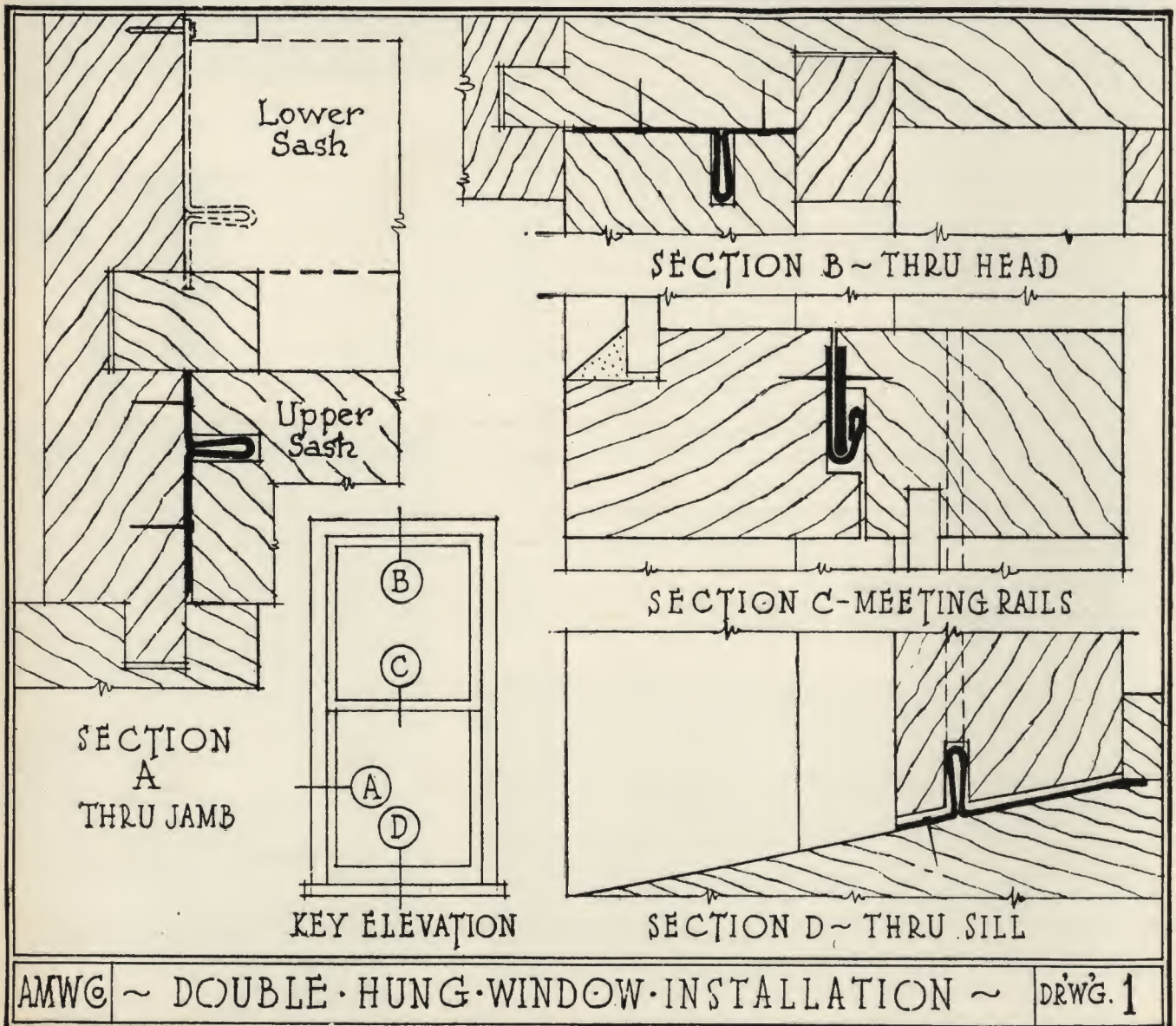


Service

Accurate Metal Weather Strips are sold to Carpenters, Builders and Metal Weather Strip Contractors. We furnish complete detail Prints for all kinds of installations, also necessary tools.

Experience and Equipment

Since 1900 this company has been engaged in the manufacture of quality weather strips. Our shop, equipped with modern rolling machines operated by skilled mechanics, insures the highest class of work, and enables us to give prompt and efficient service at proper prices.



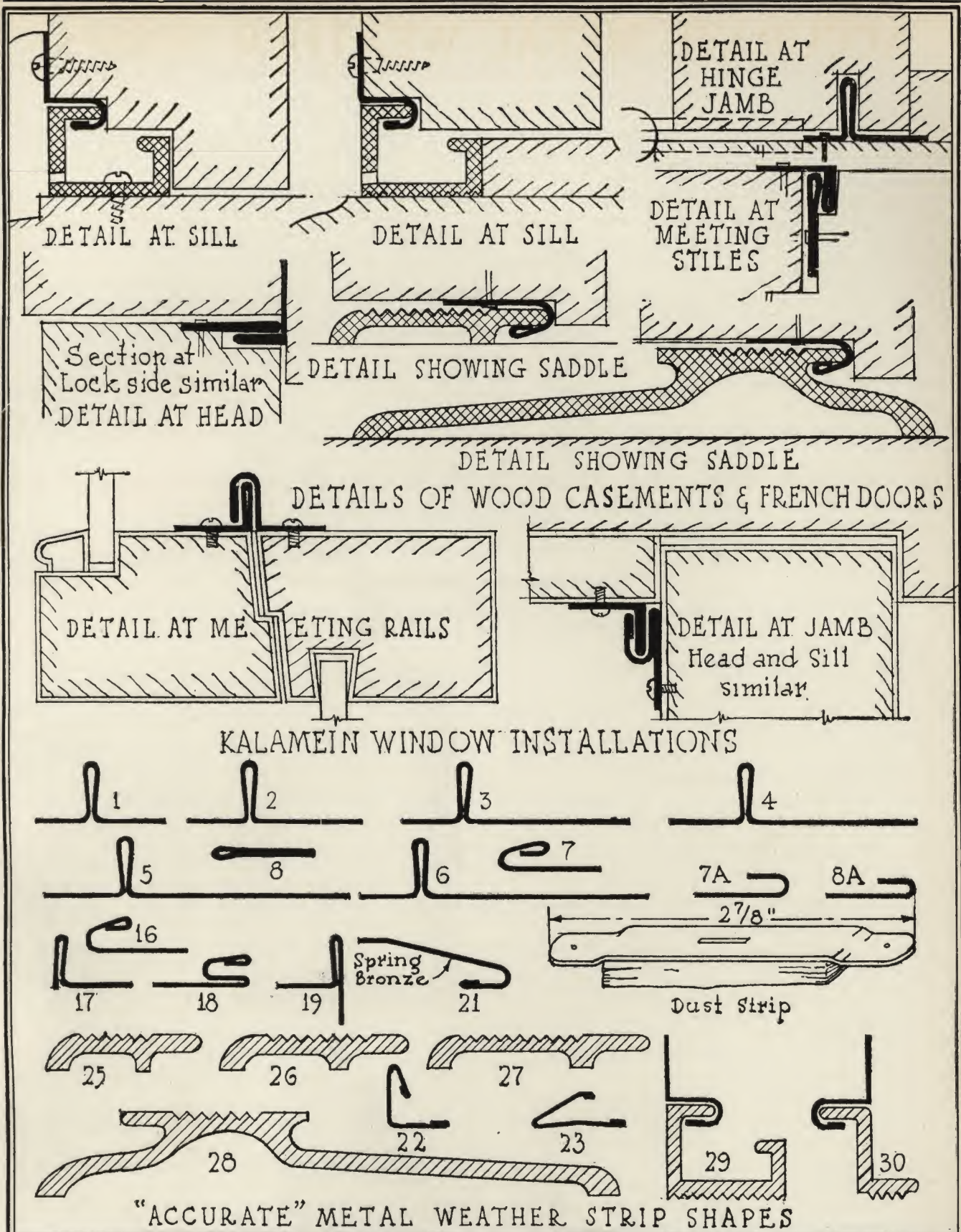
AMWC ~ DOUBLE HUNG WINDOW INSTALLATION ~ DRWG. 1

For further details and literature write to:

ACCURATE METAL WEATHER STRIP CO.

208 E. 26th St.
 New York, N. Y.

ACCURATE METAL WEATHER STRIPS (Cont.)



ACCURATE METAL
WEATHER STRIP
COMPANY

DETAILS OF
"ACCURATE" METAL WEATHER STRIPS

SCALE
FULL SIZE
JULY 1926

DRWG
2

For further details and
literature write to:

ACCURATE METAL WEATHER STRIP CO.

208 E. 26th St.
New York, N. Y.

CHAMBERLIN METAL WEATHER STRIPS

Manufactured by
CHAMBERLIN METAL WEATHER STRIP CO., Inc., Detroit, Mich.

Factories: Detroit, Mich., and Peru, Ill.

District Branches:

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.
Charleston, W. Va.

Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex.

Dayton, Ohio
Denver, Colo.
Detroit, Mich.
Flint, Mich.
Grand Rapids, Mich.

Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo.
Los Angeles, Cal.
Louisville, Ky.

Memphis, Tenn.
Minneapolis, Minn.
Nashville, Tenn.
New York, N. Y.

Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
St. Louis, Mo.

South Bend, Ind.
Terre Haute, Ind.
Washington, D. C.
Wilkes-Barre, Pa.

Branches in 100 Other Cities of the United States

Why You Should Insist on Chamberlin

You need weather strip protection as long as your home endures. So keep the following fact in mind. Because of conditions over which the most expert workman has no control—such as settling of a building, expansion and contraction due to moisture and weather conditions—the best of weather stripping installations may require some minor adjustments. Therefore, you should be fully protected. No individual can give you this protection, for his responsibility ceases if he dies or discontinues his business.



**CHAMBERLIN
WEATHER STRIPS**
"SINCE 1893-THE STANDARD"

sliding windows. The sides of the sash groove fit against the bulging edges of the tongue of the strip. The groove is standard in width. Side strips are kerfed or slotted under the stops to insure best results. Corrugations $\frac{1}{8}$ " high reduce sliding friction to a minimum. All corners are joined.

Only the more experienced mechanics are allowed to install this equipment. Therefore, a Chamberlin equipped casement window or door is as near one hundred per cent efficient as skill and thirty-five years of experience can effect.

Chamberlin Gives You Permanent Protection

But Chamberlin—a million dollar company backed by 25 years of weather stripping experience—does protect you permanently with a service-guarantee good "for the life of your building." For every Chamberlin installation there is a Chamberlin factory branch responsible and ready to step in and keep the job right. That is why you should insist on Chamberlin.

Distribution

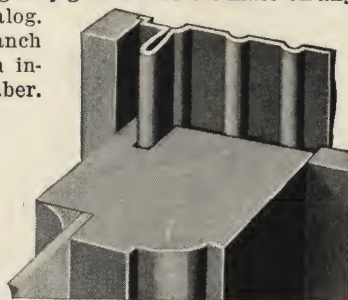
No matter where you live, Chamberlin installers install Chamberlin for you. You buy direct from the world's largest installers of weather strips.

Chamberlin Metal Weather Strips

Chamberlin manufactures a type of weather strip suitable to any style of window or door, wood or metal, and adaptable to the needs of any climate. It is proper to install Chamberlin on new as well as old buildings and no home is complete without weather stripping—because no home is economical to heat or complete without healthful comfort. Chamberlin will gladly give a free estimate on any plan shown in this catalog. Just write our nearest branch or phone our local branch indicating catalog plan number.

Corrugated Strips for the Sides of Sliding Windows

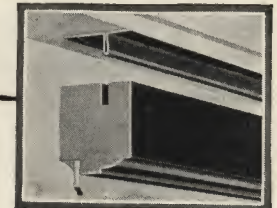
Characteristic of Chamberlin thoroughness and consequent efficiency are the corrugated side strips for



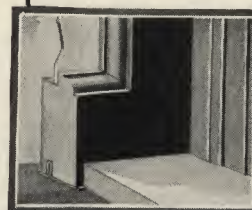
Detail Showing Chamberlin for the Sides of Sliding Windows



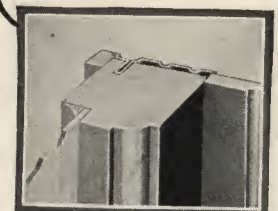
1 Head



2 Meeting Rail



4 Sill



3 Jamb

Detail Showing Chamberlin for the Sides of Sliding Windows

Illustrated above: 1—Sturdy loop tongue of head strip; 2—New (Patented) interlocking meeting-rail strip; 3—corrugated side strip; 4—Broad metal sill strip.



For further details and literature, write to:

CHAMBERLIN METAL WEATHER STRIP CO., Inc., Detroit, Mich.

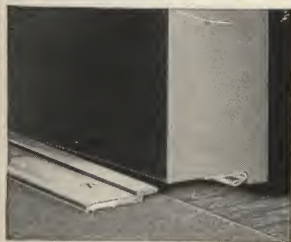
Chamberlin Pulley Covers For Sliding Windows

A feature of Chamberlin sliding window installations is the solid brass Pulley Cover which reduces air leakage through the pulley holes. Just an additional Chamberlin precaution to make your home really comfortable and economical to heat in winter. This Cover acts also as a stop for the lower sash and hides the pulley. It prevents pulley cords from jumping off the pulleys.



Chamberlin Solid Brass Sill-Dor-Seals

The outside doors of homes and other buildings are frequently the most troublesome places to prevent draughts and rain leakage. These are effectually sealed with Chamberlin Weather Strips and Sill-Dor-Seals.

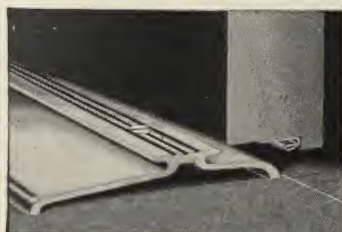


No. 69A Chamberlin Sill-Dor-Seal (1 $\frac{3}{8}$ in. wide) for rear and grade doors.

Sill-Dor-Seals. They not only are weather-proof but add dignity and beauty to the doorway of any home. Sill-Dor-Seals are furnished in several different styles to accommodate any door. They can be securely anchored to wood, stone or metal.

Sides and tops of outside doors are protected by heavy, tempered, hemmed edge, flexible spring bronze or by the interlocking type of weather strip.

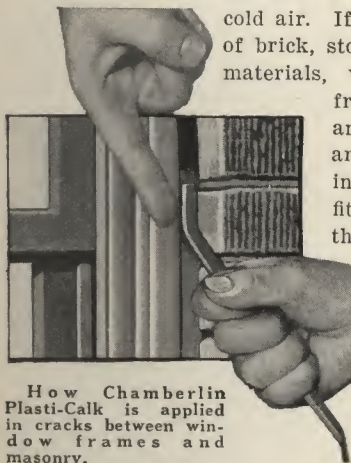
Thresholds are equipped with extruded, polished brass



No. 34A Chamberlin Sill-Dor-Seal (4 $\frac{7}{8}$ in. wide) for main entrance doors.

Chamberlin Plasti-Calk for Cracks Between Masonry and Window or Door Frames

Chamberlin Plasti-Calk effectively seals cracks between masonry and window or door frames preventing dust streaks on your walls and excluding cold air. If your home is constructed of brick, stone, stucco, tile or similar materials, wooden window or door frames shrink away, leaving an open joint all the way around. Unless they are built in metal frames can't be fitted snugly and therefore the same condition prevails.



How Chamberlin Plasti-Calk is applied in cracks between window frames and masonry.

Chamberlin Plasti-Calk applied in this crevice remains soft and adheres perfectly—it will not crumble away. Do not use cement or putty, etc., because these materials dry out and crack.

Chamberlin Automatic In-Dor-Seals

Chamberlin In-Dor-Seals are a comparatively new Chamberlin feature. Silent acting, automatic, ingeniously hidden in the bottom of the door, they do not interfere with rugs, mats, runners or carpets. A thick but soft piece of felt does the work. When bedroom windows are open, this device seals bedroom doors against the escape of the cold night air and

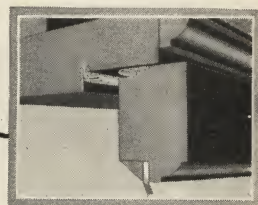


Felt seal is lowered snug to floor when door is closed and automatically raised when door opens.

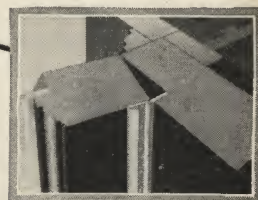
insures comfortable morning temperatures throughout the rest of the house. In-Dor-Seals seal closet doors against dust—basement doors against the escape of furnace dirt and laundry steam—kitchen doors against the escape of cooking odors. In-Dor-Seals can be used advantageously in hospitals, schools, offices, hotels and apartments.

Chamberlin Casement Window Equipment

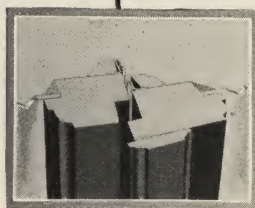
Chamberlin Weather Strips differ for every type of window, meeting each condition with an equipment designed to perform with the utmost efficiency. Chamberlin has perfected a weather strip for casements that is without equal.



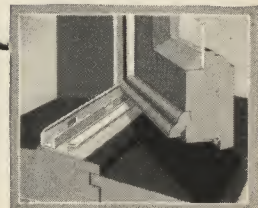
Interlocking Head Strip



Interlocking Side or Jamb Strip



Interlocking Center Strip



Heavy Zinc Double Channel Sill

One Type of Chamberlin Equipment for In-opening Double Casements

Interlocking strips at the head, center and sides form a tight seal against the rain, draughts and dust. The casement sill equipment illustrated herewith is one of several types, each of them highly effective and satisfactory. Chamberlin casement equipment includes astragals and rain drips.



For further details and literature, write to:

CHAMBERLIN METAL WEATHER STRIP CO., Inc., Detroit, Mich.

GENERAL WEATHERSTRIP COMPANY

5100 Penrose Street • St. Louis, Missouri

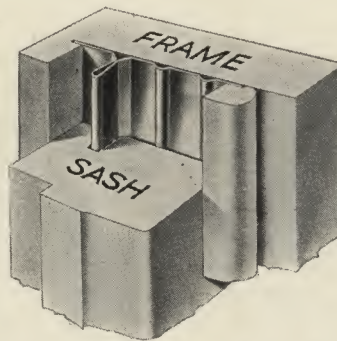
Manufacturers of

Weatherstrip for Double-Hung Windows, Doors and Casements

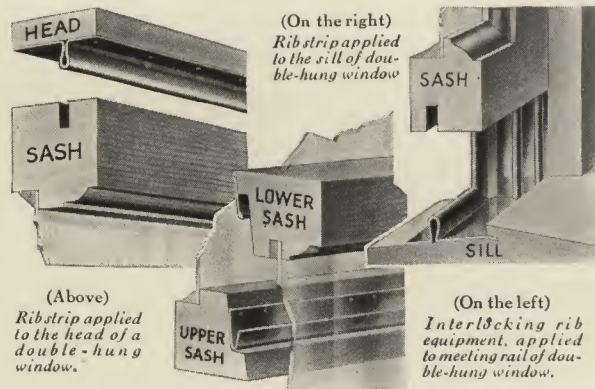
Rib Weatherstrip is a well-known standard type which has been on the market for forty years. The principle of all Rib Strips is that of a hand-ploughed sash-groove sliding on a flattened zinc tube. The efficiency of such systems wholly depends upon the accuracy of their installation. Their continued efficiency depends on the warping and shrinking of wood parts, which affect the size of the groove. General Rib Weatherstrip is the equal of any Rib Strip on the market, is precisely made and expertly fitted by skilled mechanics, and is *fully guaranteed as to material and workmanship.*

Double-Hung Windows

The equipment for double hung windows consists of heavy zinc strips applied on head and sill, fitting into a ploughed groove in the top rail of upper sash and in a similar groove in lower rail of bottom sash. Where the head and sill strips meet the side strips they are carefully mitered into a tight joint. On the sides of the top and bottom sash, corrugated rib strip is applied to the frame to permit it sliding in a groove ploughed in the sides of the sash. This strip covers the full runway. The corrugations reduce sliding friction to a minimum. At the meeting rail, a heavy flat strip is applied to the lower sash. This interlocks with the heavy hook zinc strip on the top sash. The material in the entire equipment is cut cross-grain to avoid splitting, and no "rib-bon-zinc" is used.

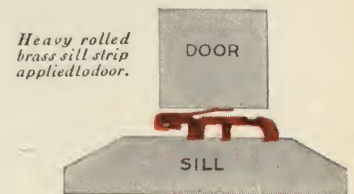
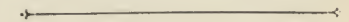


Above shows corrugated rib strip applied to sides of double-hung window.



Doors

Door equipment consists of heavy spring bronze applied on head and sides, with extruded solid brass threshold interlocking with heavy copper hook-strip on bottom of door. The spring bronze used on head and sides of doors is hemmed on both edges to prevent buckling. Another very efficient equipment may be used at door bottoms. This consists of a rolled brass sill strip which forms a contact with a bronze member fastened to the bottom of the door, and held in place by a brass guard-strip fastened on the face of the door.



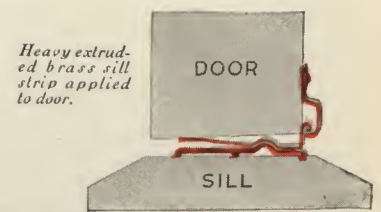
Heavy rolled brass sill strip applied to door.

Casement Windows

The equipment for casement windows consists of spring bronze strips on head, sides and meeting rail. At the sills, a heavy brass strip interlocks with a spring bronze hook-member fastened to the bottom of sash. This strip can be used on both in—or out-swinging casements.



Casement window equipment for in- or out-swinging casements.



Heavy extruded brass sill strip applied to door.



For further details and literature, write to:

GENERAL WEATHERSTRIP COMPANY

5100 Penrose St.
St. Louis, Mo.

GENERAL WEATHERSTRIP COMPANY

5100 Penrose Street • St. Louis, Missouri

Manufacturers of

Tac-Ezy Metal Weatherstrip

This new low-priced, efficient Weatherstrip has proven exactly what millions of home-builders want. Its simplicity and ease of application enable anyone to apply it at little cost and with absolute satisfaction. Whether you are planning one house or a hundred, you can afford the advantages of fuel-saving, and greater home comfort and cleanliness which good Weatherstrip provides, if you use Tac-Ezy!

What it is

Tac-Ezy Weatherstrip is a simple, economical and efficient device for making doors and windows weathertight. Anyone can put it on with a tack hammer.

It is made of heavy, hardened spring bronze, "hemmed on both edges." Tack holes are punched clear through without "burrs". Copperized tacks and simple directions are furnished.

Tac-Ezy is applied to the frame on head and sides, forming a line of contact with the edge of door or casement. On double hung windows, the strips for sides of the sash are applied to the parting bead; while on the head, sill and meeting rail it is applied to the sash, forming a smooth line of contact. You do not have to remove any part of the window or door to apply Tac-Ezy Weatherstrip.

What it does

By closing the "clearance crack" (which is around all doors and windows) Tac-Ezy—
—shuts out the cold air which ordinarily wastes half your fuel. (*The older the building, the wider the cracks, due to warping and shrinking*). Thus Tac-Ezy is a fuel-saver—because it's self-adjusting.

—stops the uncomfortable and dangerous wintry draughts that swirl around your feet at the doors, and chill your back at the windows.

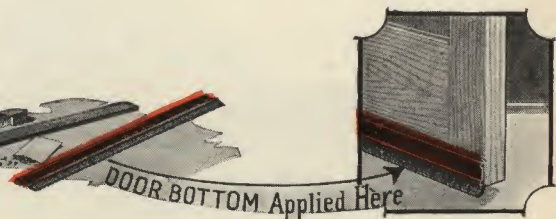
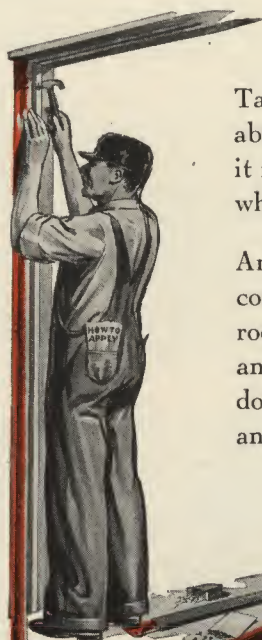
—keeps out the soot and dust that make house-keeping so tedious.

—silences those nerve-racking window-rattles.

Where to use it

Tac-Ezy has dozens of uses. It is an invaluable and permanent improvement wherever it is used, for it will outlast the building in which it is installed.

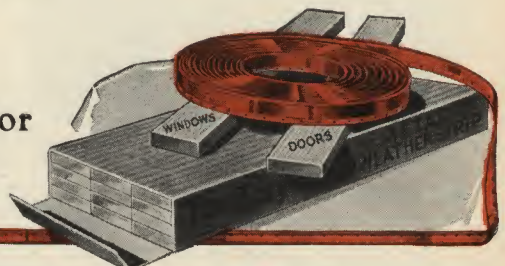
Anyone can apply it to entrance doors, communicating doors, sound-proof bathroom doors, ice-box doors, French doors and basement doors; to double-hung windows, casement windows, dormer windows and basement windows.



The special Metal Clad Door Bottom that comes as standard equipment in the complete Door Package will fit almost any door. It is ideal for doors between sleeping rooms and the rest of the house, as it keeps cold air from lowering the temperature of the whole house when windows in sleeping rooms are open.

Tac-Ezy

Comes in Individual Door and Window Packages—and in 100 foot Coils.



For further details and literature, write to:

GENERAL WEATHERSTRIP COMPANY

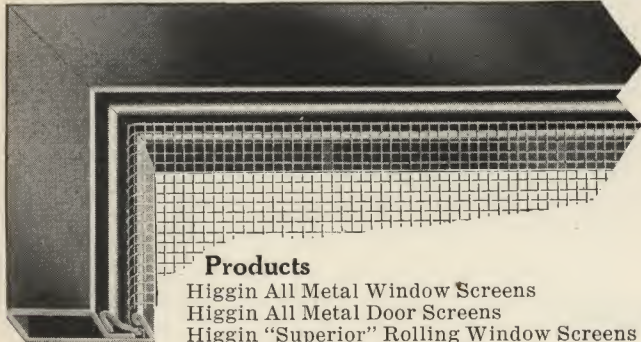
5100 Penrose St.
St. Louis, Mo.

Higgin Window and Door Screens

Manufactured and Installed by
THE HIGGIN MANUFACTURING CO.
 Newport, Ky.

Sales Agencies in Larger Cities Throughout the Country

HIGGIN ALL METAL Window Screens



Products

Higgin All Metal Window Screens
 Higgin All Metal Door Screens
 Higgin "Superior" Rolling Window Screens
 Higgin All Metal Weatherstrips
 Higgin Wood Frame Screens
 Higgin Wood Frame Doors
 Higgin All Metal Access Panels

Service

This company has been builders of individually designed metal frame screens for more than thirty years. Higgin representatives are experts in their line, having had years of training and experience. There is one in almost every large city ready to serve you. They will cheerfully confer with Building Contractors, Architects and Home Owners. The Home Office Engineering Department will gladly co-operate in working out the more unusual problems that so often arise.

Metal Frame Screens

The Higgin All Metal Frame Screen is of hollow or tubular construction, made either of cold rolled copper bearing steel or of bronze, thickness being .036 inches. The steel frame is electro galvanized in the flat, and all stiles and rails are electrically spotwelded through the spline groove. No solder is used on the steel frame screens, making it

possible to enamel the frames both inside and out and bake them to the high temperatures necessary. Bronze frame screens are made of the best grade commercial bronze, soldered and finished to specification or left unfinished to weather.

The frames are mitred at the corners and assembled on heavy reinforcement corners locked mechanically into the moulding. The mesh or screen cloth is held in place by means of a cam shaped metal spline so formed as to lock in place holding the cloth permanently taut. Splines may be easily removed.



Illustration of the use of horizontal sliding screens in connection with outswinging steel casements

mechanically into the moulding. The mesh or screen cloth is held in place by means of a cam shaped metal spline so formed as to lock in place holding the cloth permanently taut. Splines may be easily removed.

Wire Cloth

The cloth or netting used is Genuine Anaconda Antique finish bronze; 16 meshes to the inch are usually furnished, but finer may be had when desired.

Casement Windows

Either wood or metal swinging out, are screened on the inside with either horizontal sliding, pivot hinged or rolling screens.

Horizontal sliding screens operate in channel guides at the head and a solid extruded brass groove track at the sill. The track may be had so that it can be removed, leaving a clear sill when the screens are out for the Winter.

Horizontal sliding screens are used singly or in multiple units. They are particularly adapted to group casements and do not interfere with drapes.

Pivot Hinge screens are also adapted to outswinging casements. The hinge is of the concealed type and when the screen is out there are no unsightly butts left in place.

For Double Hung Windows

Double vertical sliding, half height sliding, or top pivot hinged screens are the most suitable. The sliding screens operate in channel guides mounted on the blind stop. Top hinged screens are placed in the outside rabbet. Stay bars can be provided to hold the screens open so that windows may easily be washed.

Door Screens

Higgin doors are built to order to harmonize with the house door detail. All joints are mortised and tenoned, glued and wedged. The wire cloth is rolled into a groove and held with a rattan spline which in turn is covered with a wood mould.

Higgin "Superior" Rolling Screens

Higgin "Superior" Rolling Screens offer a simple and practical method of screening outswinging casement windows. When not needed the cloth rolls up into a box concealed in the head of the window frame. The advantages are obvious—no winter storing, always in place when needed, no interference with curtains or drapes.

The box, roller, tracks and locking rails are made of heavy gauge specially treated rust-proof steel. The use of double salvaged bronze wire cloth assures durability, beauty and long life.

The locking rail is very rigid, being formed from a single piece of metal with a shaped groove running its entire length. The particular shape of the track gives it the rigidity necessary to hold itself in alignment after once being placed in position.

The spring construction eliminates all possible drag on the wire fabric, and affords free and easy movement in all positions.



Higgin "Superior" Rolling Screen Installed in Casement Window



For further details and literature write to:

THE HIGGIN MANUFACTURING CO.

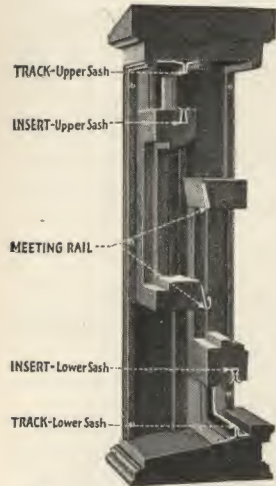
520 Washington Ave.
 Newport, Ky.

Higgin All Metal Weather Strips

Manufactured and Installed by
THE HIGGIN MANUFACTURING CO.
Newport, Ky.

Sales Agencies in the Larger Cities Throughout the Country

HIGGIN
ALL METAL
Weatherstrips



The patent INSERT strip makes Higgin Weatherstrips extra draft-tight.

Products:

Higgin All Metal Weather Strips, All Metal Window Screens, Wood Frame Door Screens, Metal Frame Door Screens and Wood Frame Window Screens made to order. (For Screens see opposite page.)

We will contract to furnish and install Higgin All Metal Weatherstrips in new or old buildings.

Service:

We bring to our task of serving you many years of manufacturing experience in various lines. The HIGGIN ALL METAL WEATHER STRIP has been designed to complete and perfect the task of shutting out unbidden air currents around windows and doors. We believe that nothing better exists in its line.

But the installation of the strips is just as important as the construction of the strips themselves. It is, therefore, well to remember that in addition to our sales organization located in principal cities of the country, we also have thoroughly competent, skilled fitters operating from the same centers to look after the minutest detail of installation. When your con-

tract is placed with the Higgin organization you may rest assured of its having the most painstaking consideration.

Double Hung Windows:

The Higgin Two-Member Track and Insert Equipment for double hung windows consists of a rib track, fitted to the window frame. The rib or raised portion is $\frac{3}{8}$ -in. high and extends into a groove cut into the edge of sash at jambs, head and sill. This strip called the Track is usually made of zinc.

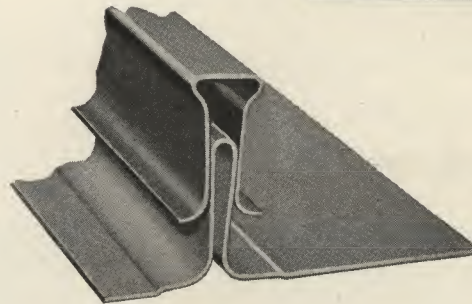
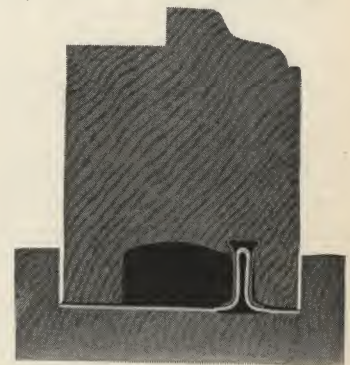
Insert:

The other strip called the Insert fits into the groove in the sash and is so formed that the spring sides or flanges contact lightly with the raised tongue or rib of the track and effectually seal the aperture. This strip is usually made of spring bronze of very thin gauge metal. The Insert resting on the slightly raised portion at base of rib on track insures easy sliding.

Not Affected by Sash Shrinkage:

The Higgin Weather Strip is all metal. There is nothing about it to wear out or get out of order. The method of construction is such that the two parts do not cut or damage each other. The sides only of the Insert come in contact with the tongue of the Track. The efficiency of the equipment is not affected by shrinkage of the sash. If the sash draws away from the frame the sides of the Insert contact with the tongue of the Track and effectually close the space.

NOTE: The Higgin Track for single member strip may be used without the Insert and is as effective as any other single member strip. This single member strip can be furnished at less cost but it is not so effective as when the two-member track and insert equipment is used.



Casement Windows:

The top and lock sides are equipped with a flat zinc or copper strip attached to sash which interlocks with a hook strip of same metal, secured into the rabbet. The hinged side, a rib track is applied, the raised tongue extending into a groove in the sash. The bottom of out-opening sash are usually equipped the same as for top and lock sides. In-opening sash are equipped with an interlocking trough of either brass or zinc. This equipment has proven very efficient in stopping air and water leakage.

Doors:

In the rabbet at sides and head are attached a compression spring bronze strip which contacts with door as it closes. For the bottom an extruded brass threshold with an interlocking brass hook and spring bronze contact strip makes a thoroughly air and water-tight equipment and provides a handsome and permanent threshold.

A line to the Home Office will result in placing you in touch with our nearest sales agency.



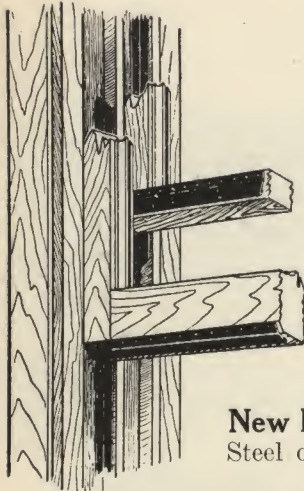
For further details and literature, write to:

THE HIGGIN MANUFACTURING CO.

Newport
Kentucky

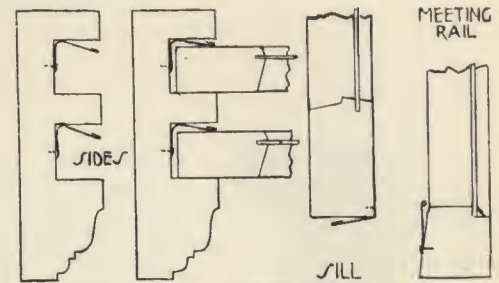
A. B. C. WEATHERSTRIPPING ALL BRONZE CONSTRUCTION

Made by
HOFFBAUER COMPANY, Inc.
 16-18 East 12th Street, New York City



ALL BRONZE CONSTRUCTION
ALWAYS BRINGS COMFORT
REGISTERED TRADE MARK

The greatest heat losses in any building is due to air leakage through window and door frames. The use of insulating material in building construction does not prevent these losses. If you believe in insulation (and most builders and home-owners do nowadays) then make a good job of it by weatherstripping all windows and doors.



Cross section window sash and frame, showing installation of A. B. C. Weatherstrips. Note how the weatherstripping clings to the sash and keeps out cold air and stops rattling.

New Products

Steel or hollow metal Windows and Doors
 Casement or double hung.
 Write for full particulars.

A. B. C. Weatherstripping

A. B. C. Weatherstripping is indorsed by building contractors and architects as the *most efficient* system of sealing windows and doors. It is also the easiest to apply and least expensive since it can be installed without removing or grooving the sash. The low cost of A. B. C. Weatherstripping is so quickly covered by the saving of fuel that it is really not an additional expense at all, but a decided economy.

Free Estimates Furnished

A. B. C. Weatherstrip can be supplied for all types of windows (including casements) and doors.

Send us a list of windows and doors, with dimensions, and we will quote on weatherstripping installed, or on material only.

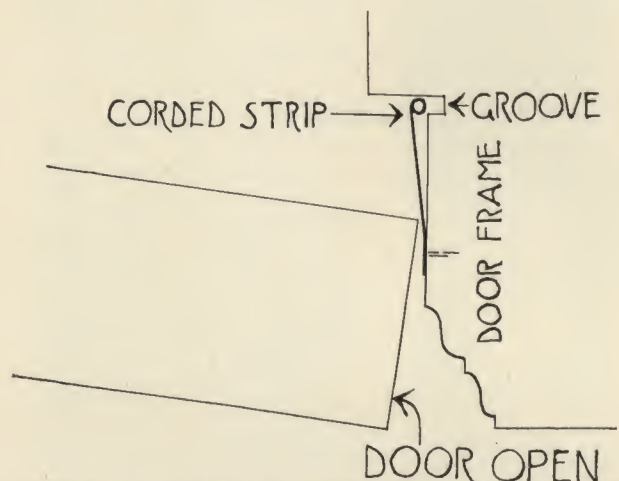
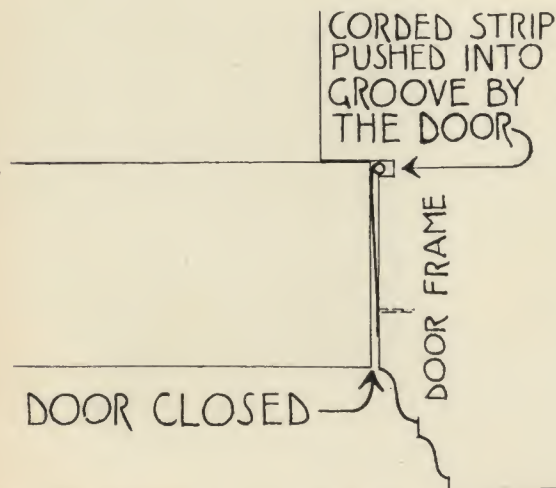
Made of Rust-Proof Bronze

Only the best of Spring Bronze is used in the manufacture of A. B. C. Weatherstrip. This insures it against rust and provides for expansion, shrinkage or warping of the sash. Under all conditions A. B. C. Weatherstripping fits snug against the sash without binding. It keeps cold air out and warm air in; prevents drafts and window rattling; keeps out dust and deadens street noises.

Send for Installation Chart

We shall be glad to mail to any building contractor on request our chart illustrating best methods of installing A. B. C. Weatherstripping on all types of windows and doors. This is useful information to have on file and you incur no obligation by asking for a copy. Call on us for any other information you want regarding weatherstripping. Our long experience in this line of work is freely at your service.

Illustrating Application of A. B. C. Weatherstrips to Doors



For further details and literature, write to:

HOFFBAUER COMPANY, Inc.

16-18 East 12th St.
 New York City

INVINCIBLE WEATHER GUARD CO., INC.

Nostrand Avenue and Midwood Street

BROOKLYN, N. Y.

The Importance of Proper Installation in Weatherstrip

The success of probably no other branch of building construction depends to so large an extent upon careful and expert installation methods, as in the weatherstripping of windows and doors.

Experience has shown that often too much weight is placed on this or that particular design, but little upon its proper application.

The protective qualities sought in weatherstrip can be obtained only by proper design and materials, properly fitted and set. *There can be no substitute for careful work.*

Invincible Weather Guard is the result of years of experience in the design, manufacture, and *installation* of weatherstrip. When properly installed on windows and doors, it provides a simple, permanent and effective protection against drafts, dust and rain.

Guaranteed "All Ways the Best"

Although comparatively new, the Invincible Weather Guard type of protection has already become widely used and amply justifies the slogan, "All Ways the Best."

When installed by us, it will furnish entire satisfaction and carries an unqualified guarantee for ten years.

Features of Invincible Weather Guard

Simplicity—Invincible Weather Guard is simple and strong in design and contains no complicated or spring mechanisms to go wrong.

Easy in Operation—All parts firmly fastened to frame or sash and operate with usual action of window or door.

Permanence—Unaffected by weather, as only bronze, zinc, brass and copper are used.

Concealed Work—In almost every case it is possible to install Invincible Weather Guards, so that, when the window is closed, no part of the work is visible.

Types

There is a type of Invincible Weather Guard to take care of every condition. Some of the more common of these are illustrated below.

Note: Special equipment drawn up on request.

Specification

All exterior wood sash and doors shall be equipped with metal weatherstrip as manufactured and installed by the INVINCIBLE WEATHER GUARD CO., INC.

Material to be 9 and 12 gauge pure sheet zinc, sheared across grain, and installed with $\frac{7}{8}$ -in. No. 16 galvanized and barbed steel wire nails.

When copper, specify 12 and 16-oz. cold rolled sheet copper, with copper nailing.

Sliding sash: sill and meeting-rail hook member of No. 12 gauge zinc, balance No. 9 gauge. Lower jamb strip set into scratch in parting strip and under stop, nailed or screwed at top and bottom. Sill, upper jamb and head strip to approximate width of thickness of sash. Nails spaced 2 in. at sill and meeting rails, and 4 in. at upper jambs and head.

Outswung hinged sash: No. 9 gauge interlocking hook and flat strip at head, sill and lock stile. No. 9 gauge double base tongue strip meshing into groove in hinge stile.

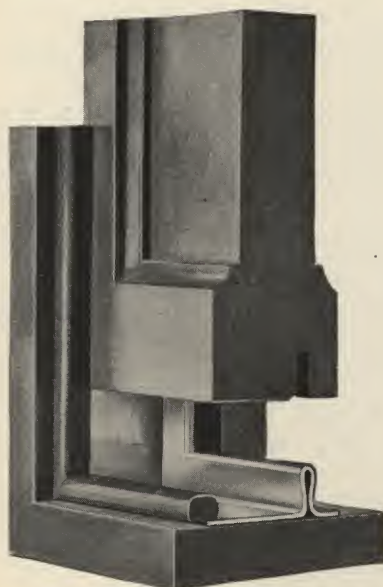
Inswung hinged sash: same, except brass water guard at sill.

Doors: same, except with interlocking brass threshold.

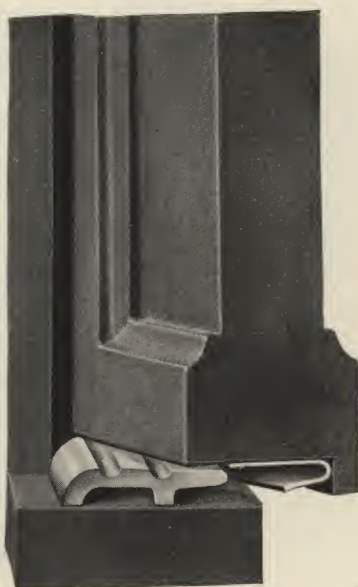
Pivoted sash: No. 9 gauge interlocking hook and flat.



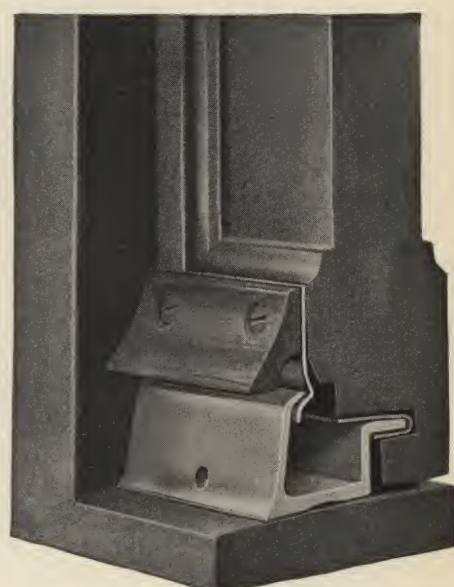
Interlocking Type for Meeting Rails of Double Hung Sash, Hinged and Pivoted Openings



Weather Guard Installed at Head, Sills and Jambs of Sliding Sash



Interlocking Brass Threshold



Interlocking Brass Water Guard for Inswinging Hinged Windows



For further details and literature, write to:

INVINCIBLE WEATHER GUARD CO., Inc.

Nostrand Ave. and Midwood St.
BROOKLYN, N. Y.

Rustless Insect Screens "Kane Quality"

"Kane Quality" Metal Weather Strip

Made by
KANE MANUFACTURING COMPANY
Kane, Pennsylvania

Products

Wood and metal-frame Insect Screens for practically any kind or shape of window, porch or door openings. Made to order only.

Also weather strips and accessories of zinc, brass, bronze and copper.

Experience

The Kane Mfg. Co., has been engaged in the manufacture of insect screens for nearly thirty years. The factories have been designed and equipped with special facilities for making its product a leader in the industry. Ideally situated for distributing its product.

Service

Distributors are located in all principal cities who maintain organizations experienced in estimating, selling and installing, through whom our patrons are assured of efficient handling of their specifications. Architects and builders are invited to consult with our distributors concerning their specifications.

Materials

Our line of endeavor being to produce the best goods possible in our field—we adhere to one standard and manufacture one grade only of each of our products.

Wood-Frame Window and Door Screens

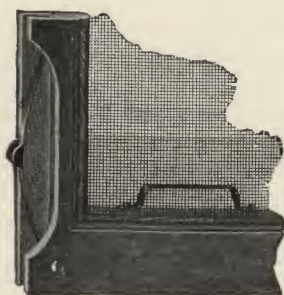


Fig. 13

Wood-Frame Window Screens

The screens with riveted corners. Fig. 13. Frames have mortise and tenon joints, glued and wedged. A brass rivet in each corner insures a permanently rigid joint—a distinctive feature. The standard thickness of frames is $\frac{1}{4}$ in. after being sanded. Furnished in any other thickness and in any kind of wood desired.

Grilles

To protect the lower panels of door screens from damage, we recommend and furnish a variety of brass and bronze grilles, ornamental in design and finish when specified.

Hardware

Our hardware is largely made to order after our own designs to provide most practical fastening and operating devices and to be in keeping with our product.

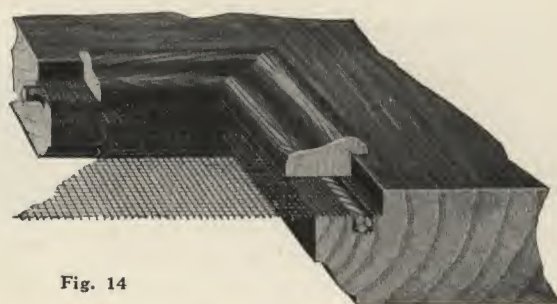


Fig. 14

Wood-Frame Door Screens

Frames are made from selected lumber, thoroughly dried.

Standard dimensions are $1\frac{1}{8}$ in. thick with $3\frac{1}{2}$ in. stiles and top-rails and $5\frac{3}{4}$ in. bottom rails, except single panel doors which have 11 in. bottom rails.

Other frame thicknesses and widths and in any design furnished as may be specified.

Corners are full mortise and tenon, wedged and glued.

Kane doors will not sag or warp.

The screen cloth is held in the grooved frame with a special jute cord and covered with neat molding (Fig. 14).

This method of wiring has proven most satisfactory to prevent breakage of the screen cloth at the joint from vibrations which occur in service when a more rigid fastening method is used.



For further details and literature, write to:

KANE MANUFACTURING CO., Kane, Pa.

Kane Screens and Weather Strip (Continued)

Metal-Frame Screens



Fig. 4



Fig. 2

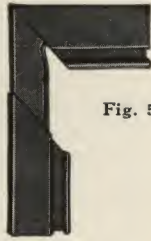


Fig. 5

Made from special alloy cold-rolled steel or from solid bronze. Steel frames are galvanized inside and outside. Metals are of heavier gauge than are customarily employed for the purpose.

Regular frames are $\frac{7}{16}$ in. thick and 1 in. wide for usual sizes of window screens.

Special frames are $\frac{7}{16}$ in. thick and $1\frac{1}{8}$ in. wide—designed for larger screens such as French windows, porches and small doors.

The $\frac{7}{16}$ in. by 1 in. frames may be had with outside edges either square or rounded; the $\frac{7}{16}$ in. by $1\frac{1}{8}$ in. frames with square outside edges only.

The tubular frame (Fig. 2) with mitered joints supported and reinforced on the inside with a pressed-in corner insert sweated into place (Figs. 4 and 5) provides the maximum degree of rigidity and resistance to twisting stresses and permits fixtures to be neatly and securely attached to the inside of the frame.

The molding is original in design and purpose. It is sprung into place under moderate pressure and forms

a neat joint flush with the face of the screen and holds the screen cloth evenly and securely. Provision is made for easily removing the molding to replace the screen cloth. Kane Quality screens are rewirable in fact—not in theory only.

Large screens are braced with either tubular or rod braces (Figs. 8 and 9). Pulls for sliding screens (half size) are securely riveted di-



Fig. 12

rect to frames (Fig. 10). Sliding screen springs are easily removable when necessary (Fig. 12). Guides for sliding screens are furnished the full height of openings so that screens may be used at upper sash openings if desired.

Screens for full size of openings are equipped with fastening and operating fixtures best adapted to meet conditions as may occur—hooks and eyes or spring bolts for stationary screens; top hangers or pivots for suspending at top of openings; loose-leaf and loose joint hinges or pivots for casement screens.



Fig. 10

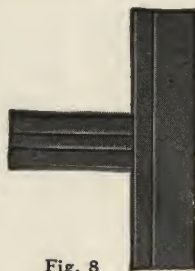


Fig. 8

Finishes

Steel-frame screens are finished with Nitro Cellulose enamels, the hardest and most durable metal finish known; a pleasing semi-glass in such colors or grains as may be specified. Bronze frames furnished in the various finishes which are applicable to the metal.

Screen Cloth

Unless otherwise specified, we use 16 mesh bronze screen cloth and recommend this material as most serviceable under all usual atmospheric and climatic conditions. It is as non-corrosive as pure copper and 50% stronger.

Other screen fabrics furnished as may be specified.

Metal Weather Strip

Double Hung Windows

The "Kane Quality" metal weather strip equipment for double hung windows consists of a beaded edged rib track strip, fitted into the runways of window frame. The beaded edge rib, or raised portion of strip is $\frac{3}{8}$ in. high and extends into a groove cut into the edge of sash, at jams, head and sill. This strip can be made of Zinc or Copper, but is usually made of Zinc.

The groove in sash can be used either with or without an insert or liner, made of either Zinc or Copper.



Fig. 16

The meeting-rail is equipped with a flat Zinc or Copper strip turned back on itself, and is attached to the top rail of the lower sash, this engages and inter-locks with a hook strip of the same metal attached to the bottom rail of the upper sash.

Casement Windows

"Kane Quality" metal weather strip equipment for casement windows consists of a flat Zinc or Copper strip turned back on itself, which is attached to the top and lock side of sash, this inter-locks with a hook strip of the same metal which is fitted into the rabbet of window frame. The hinged side has a rib track strip applied to the window frame and a groove cut in edge of sash, into which the rib track strip fits. The bottom of out-opening sash are usually equipped the same as the head. In-opening sash are equipped on the bottom with a Brass or Aluminum channel attached to sill of window frame and inter-locks with a hook-strip which is attached to bottom of sash.

Doors

On both sides and top, in the rabbet of door frame, is attached a compression Spring Bronze Strip which makes contact with door as it closes. On the door sill is attached an extruded Brass threshold which inter-locks with a Brass hook attached to bottom of door.



Fig. 15



Fig. 17



For further details and literature, write to:

KANE MANUFACTURING CO., Kane, Pa.

KUHLMANN METAL WEATHER STRIPS

Manufactured by

KUHLMANN METAL WEATHER STRIP CO.

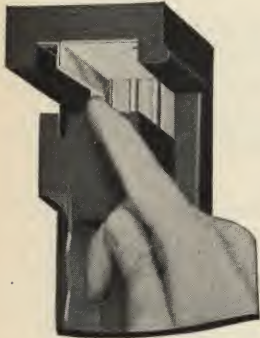
Home Office and Factory 3801-3 Forest Park Bl.

Established 1908

St. Louis, Mo.

Sales Agencies Throughout the Country

Kuhlmann Metal Weather Strips Keep Out Cold Air, Rain and Dust and Save 25% of the Fuel Bill



Scientific tests have shown that the average sliding type of window admits 30 cubic feet of cold air every minute of the day and night when the wind is blowing at the mild velocity of only 15 miles per hour. With a stronger wind the rate of leakage is much higher. Kuhlmann Metal Weather Strips will eliminate practically all this discomfort, menace to health and fuel waste.

A Kuhlmann Metal Weather Strip installation is made once and for all time. Thereafter it

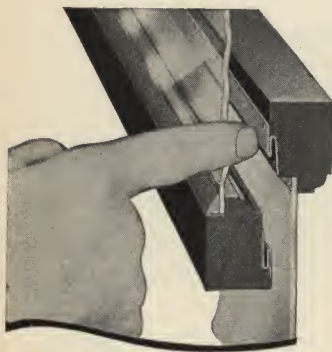
endures throughout the life of the house—an investment for a lifetime.

The usual type of double-hung, sliding window "leaks like a sieve." This results in from 3 to 10 complete changes of air every hour, which means that the room must be reheated from 36 to 240 times every day—UNNECESSARILY. If you think that weather strips are of only minor importance, consider those figures for a moment!

You can stop that loss. The picture at the left shows how a Kuhlmann Metal Weather Strip seals the top of a sliding window. Note the sturdy headstrip of zinc with its tongue which fits into a carefully mortised groove, forming an absolutely weather-proof joint.

A Double-Thick Seal

The crack at the meeting rails of all sliding windows



hitherto has presented practically an unsolved problem. But note, in the cut on left how simply, yet positively, the centuries-old difficulty has been overcome. Instead of the ordinary one-thickness, hook and straight varieties of window strip, the Kuhlmann Metal Weather Strip is a double-thickness contact, with each of the interlocking weather strips so nailed on both sides as to provide absolute rigidity and a permanent lifetime seal.

This crack, in most windows of the double-hung type, is so located as to send a blast of cold air against the chest and throat of a full grown person, which makes for colds in the head and bronchial troubles, all of which are dangerous and prolific sources of illness the year round. It is true that fresh air should be admitted to every inhabited room but this should be done under intelligent control and not in the haphazard way that draughty doors and windows inflict it upon the average family. Regulate your family's fresh air, and to a large extent, you will regulate its health.

Air-Tight But Easy Sliding

Those to whom sticking, binding windows have brought never-ending annoyance are especially invited to examine the illustration at the left. For this exacting position Kuhlmann provides a specially designed weather strip which makes the window surprisingly easy to operate, yet which insures an absolutely air-tight seal.

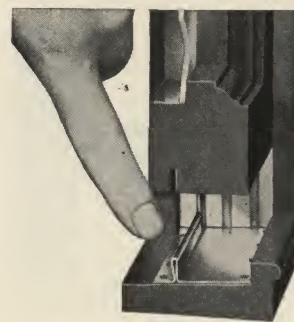
Note, in the cut, the loop tongue which fits snugly into the mortised groove, also the two slightly-raised corrugations, the comparatively narrow tops of which present the only friction resistance against the raising and lowering of the sash.

Also notice how this Kuhlmann Metal Weather Strip completely covers the run-way, and is mortised into the stops as well. A person seated near a window thus equipped will suffer from no chilling drafts nor will the curtains, draperies or walls be soiled with outside dust. In the average window the length of the two sides is approximately equal to the combined length of the top and bottom joints, therefore the thoroughness with which Kuhlmann Metal Weather Strips exclude the air at those joints is one of the most valuable Kuhlmann features.



A Perfect Joint at the Sill

The ordinary window that keeps out cold air at the sill must be made so tight that it causes constant annoyance by sticking and binding. As a result of this disagreeable feature, the window frequently is left closed when it should be thrown open to admit healthful, needed air to the room.



The Kuhlmann Sill Strip makes the lower part of the window as thoroughly air-tight as are the other three sides. This is vitally important for every member of the family, but it is particularly so for the children who play on the floor. It is well known that draughts move in a circular fashion, with their greatest intensity near the floor, walls and ceiling. Their greatest force, therefore is directed against the children on the floor. Moreover, these

air currents carry the bulk of the dust and germs in the room which accounts, to a large extent, for the prevalence of colds and throat and lung ailments among the little ones.

Note, in the above illustration, how this is prevented by the loop tongue of the sill strip, and notice how it is mortised into the side-strip tongue, resulting in a perfect, reinforced, mitred, tongue-and-groove joint.

Outside Doors Easily Sealed

Sealing of outside doors is even more important than that of windows because a loose-fitting door frequently will admit more cold air than several windows. Kuhlmann outside door equipment provides a perfect seal throughout the years, being so designed as to withstand the constant wear of opening and closing.



For further details and literature, write to:

KUHLMANN METAL WEATHER STRIP CO.

3801 Forest Park Blvd.
ST. LOUIS, MO.

HOME BUILDERS CATALOG

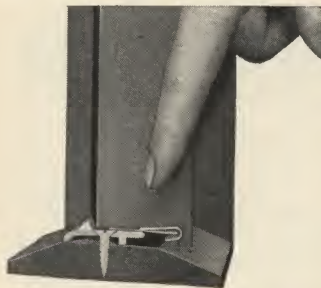
KUHLMANN METAL WEATHER STRIPS (Continued)

The cut in this space shows the corrugated bronze strip that renders the door air tight on three of its edges—both sides and the top. Notice how both edges of this strip are folded over to provide double-thick reinforcing. Four corrugations also greatly increase the strength and spring-tension, thus assuring a permanent, weather-tight joint. A special strip is provided for use where the lock prevents the use of the wide bronze sidestrip. In fact, the sealing of every type of door and window is made easily possible by Kuhlmann equipment designed especially for the purpose for which it is intended. Kuhlmann-sealed

doors open and close easily, exclude practically ALL the cold air, and the equipment, once installed, will serve you perfectly for many, many years.

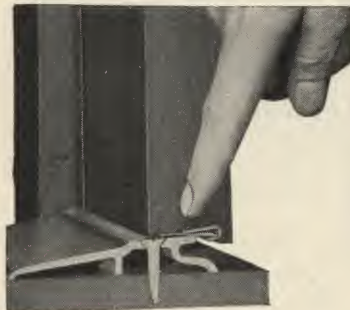
Makes Cold Floors Warm

The door sill presents perhaps the most difficult joint in the entire house to seal. It not only must withstand the frequent opening and closing of the door but must resist the constant wear of shoes that pass over it day after day.



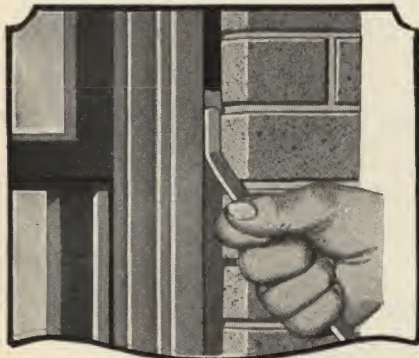
In this space is shown the Kuhlmann Extruded Brass Sill Plate for use on doorways with wooden sills. For those equipped with sills of material other than wood the Kuhlmann Extruded Brass Interlocking Threshold is especially provided

and is fully described in our literature which will be mailed free on request.



Notice, in the cut here shown, how the lip of the sill plate fits snugly into a bronze hook member attached to the bottom of the door. A moment's study of the photographic cut will show you that the sill plate excludes the cold air not only by its pressure against the bottom of the door, but that the strip on the door itself carries a spring seal with a hooked strip extending

the entire width of the opening and this edge slips under the sill-plate, forming still another seal. How can cold air

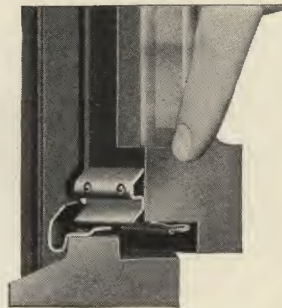


pass through an opening so effectively and permanently closed?

Marring of walls and soiling of draperies by the constant in-leakage of dust through cracks that appear between walls and the frames can be eliminated by the use of Kuhlmann's Calking Compound. This is a plastic, elastic substance that is forced, when soft, into the cracks. A tough outer skin develops on the calking, keeping it soft and pliable, and at the same time this skin soon becomes unnoticeable. Adheres perfectly to brick or metal and is widely used for bedding and glazing, pointing up stone work, setting tile, calking terra cotta and plugging leaks of all kinds.

At Last! A Real Casement Seal!

Builders and owners who have for years been disheartened by the difficulty in sealing in-swinging casement windows will find Kuhlmann Casement Metal Weather Strips solving their problems. This modern and artistic type of window can now be made as weather-tight as any other opening in the building.



The cut in this space shows how the baffling problem presented by the bottom of the casement window has been effectively solved by the use of Kuhlmann's Wat-Air-Tite patented bottom. In addition to the zinc strip fastened to the window as a water shed and wind baffle, in-leakage of air is prevented by a hooked bronze strip attached to the bottom of the window. This strip clamps snugly around the lip of the zinc sill strip. The result of this adroit lapping of metal over

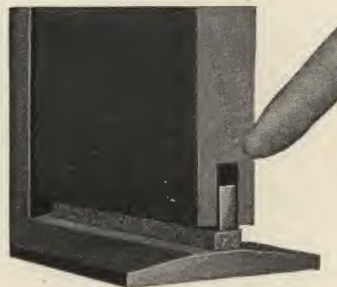
metal is a seal that makes absolutely certain a joint between frame and sash that absolutely excludes water and air and one that will continue to perform its work satisfactorily winter and summer, year after year without attention.

For the bottom of the window—another source of endless annoyance—the Kuhlmann Wat-Air-Tite patented bottom forms a joint that is absolutely leak-proof, operating very much like the Interlocking Threshold shown on this page. Our literature describes it fully.

Cool Bedrooms in a Heated House

Here is an entirely new feature which is meeting with an enthusiastic welcome from home owners who appreciate the value of sleeping in rooms with open windows without cooling off the rest of the house. This is a practice which health authorities universally recommend, and it has banished a large percentage of the morning headaches from the land.

The Kuhlmann Automatic Door Bottom fits into the bottom of the door completely out of sight, yet as soon as the door is closed a thick, soft strip of felt along the entire width of the door is forced down against the floor, positively sealing the opening there. When the door is opened four inches the felt is automatically drawn up into the bottom rail of the door where it cannot interfere with rugs or carpets.



Not only is cold air thus kept out of the warm portions of the house, but the seal excludes cooking odors, furnace dirt, laundry steam and dust from closets. Hospitals and schools are adopting Kuhlmann Automatic Door Bottoms rapidly as the most efficient device known for preventing drafts and muffling annoying corridor noises. Information

regarding special cases involving this and all other Kuhlmann products will be furnished gladly on request.



For further details and literature, write to:

KUHLMANN METAL WEATHER STRIP CO. 3801 Forest Park Blvd. ST. LOUIS, MO.

MONARCH METAL WEATHERSTRIP

Manufactured by
MONARCH METAL WEATHERSTRIP CO.
St. Louis, Mo.

Factory Representatives in All Principal Cities
FOR CASEMENT HARDWARE SEE PAGE 219

Products: Metal weatherstrip for double hung wood windows, casement windows, wood doors and steel windows of all types.

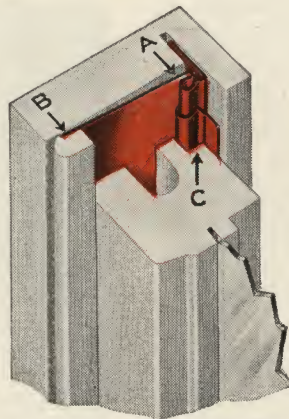
The Lane Vatafend System of Monarch Metal Weatherstrip which includes 26 different types of strip, any one or all of which might necessarily be used in one building—is guaranteed to reduce the volume of inleaking air to a fixed minimum.

Exclusive features: Each Monarch strip is first designed to meet a condition. Then machines are designed to manufacture the strip in such a way that performance will be built in the product at the factory and not depend on skill of installation for its efficiency.

The Monarch strip shown here is the patented interlocking-two-member strip used on double hung wood sash. It keeps the window crack sealed under all conditions. Shrinking and swelling of wood can never change its efficiency. Windows can always be opened and closed easily.

The Economy of Monarch: Monarch is sold and recommended to control the main source of heat loss in buildings.

Excessive heating expense is not caused by inefficient heating equipment, but by a condition that needs this simple remedy.



One tube (a) on a floating seam, which is fastened at (b) on the frame slides in a tube (c) which is fastened to the sash. This exclusive patented principle automatically adjusts the floating seam to keep the crack closed when wood shrinks or swells.

Doors and windows must have clearance so that they may be opened and shut easily. As the building ages and the sash and frame shrink and season, this clearance widens to a sizable crack. And through these cracks the cold air blows and leaks—cold air that wastes more than half the fuel you burn.

Monarch stops this heat waste by permanently sealing the cracks regardless of shrinkage of woodwork.

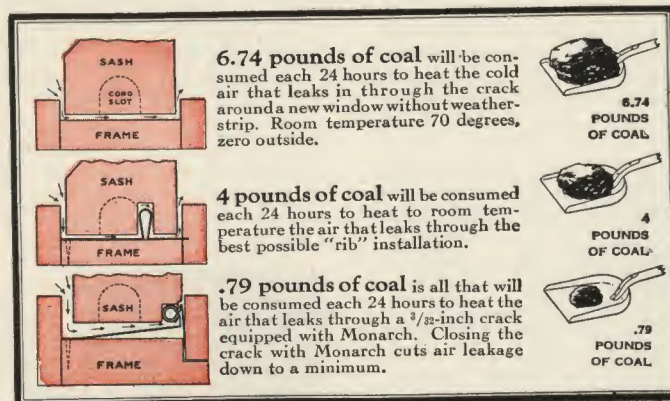
Many users state that Monarch has reduced their fuel bills from one-third to one-half the first year—and these savings continue for the life of the building.

Service: Monarch is sold and installed by licensed factory representatives.

All work is guaranteed by the Monarch licensee and the

Monarch Company. Since all parts are machine made at the factory and do not depend on skill of installation for their efficiency, servicing after installation is rarely if ever needed.

Guarantee: The Lane Vatafend System of Monarch Metal Weatherstrip is unconditionally guaranteed to be free of defects in material, workmanship or installation and to permanently maintain maximum efficiency in the reduction of air leakage, for the life of the building.



For further details and literature, write to:

MONARCH METAL WEATHERSTRIP CO.

5020 Penrose St.
ST. LOUIS, MO.

Niagara Metal Weather Strip

Manufactured by
NIAGARA METAL WEATHER STRIP CO.

Established 1912
37 W. Tupper St.
Buffalo, N. Y.

Products:

Reinforced Metal Weather Strip
Special Casement Window Equipment

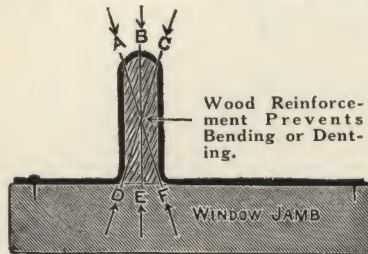


Figure 1

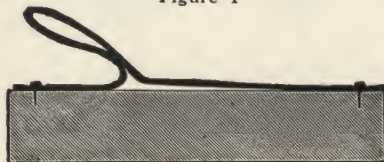


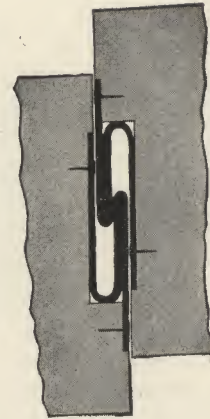
Figure 2

For Window
Ventilators see
page 211.

Figure 1 is a sectional drawing of Niagara Metal Weather Strip. Note its heavy wood reinforcement.

Pressure exerted at (A) is met by the resistance of the wood with pressure at (F). In the same way, pressures at (B) and (C) are overcome.

It cannot bend or dent as ordinary weather strip will do from a light blow (Fig. 2). Wood reinforcement keeps the sides apart and prevents collapse, assuring years of constant dependable service.



The Non-Collapsible Meeting Rail Strip

Designed for the center or meeting rails of double-hung windows, this strip consists of a piece of metal folded back on itself to give maximum strength, and nailed securely along both top and bottom edges to prevent tearing or collapsing. Actual tests have proved this meeting rail to be five times as strong as the ordinary single hook.

Double Hung Windows

Niagara Metal Weather Strip is the strongest equipment of its kind. This is not an idle statement, but a proven fact based on competitive tests and a general superior construction which is apparent to even the untrained buyer.

A sturdy wood reinforcement gives maximum strength where the greatest strains are encountered. It is this unequalled strength and durability that distinguishes Niagara Metal Weather Strip from all others and makes it a permanent protection against cold, dust, dirt and storm.

Doors

Niagara Threshold Protection completely eliminates the drafty door that in so many cases chills an entire house, and makes floors cold and dangerous, especially for children. No springs or moving parts to wear out. Unaffected by ice and snow.

Consists of a brass bar and "L." The bar is beveled on the inside edge, extending the width of the door sill, and is screwed to the floor. The "L," lined with felt, is screwed to the inside of the door. The lower end of this "L" engages with the bevel when door is closed. Made to accommodate any door. The finest threshold protection made.

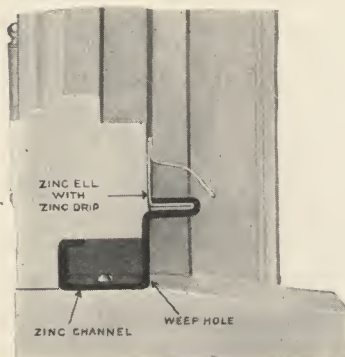
Casement Windows

For Sill of In-opening Casement Windows:

Extruded Brass Channel Bar.

Extruded Aluminum Channel Bar.

Craig Channel Bar in Brass or Zinc with Drip.

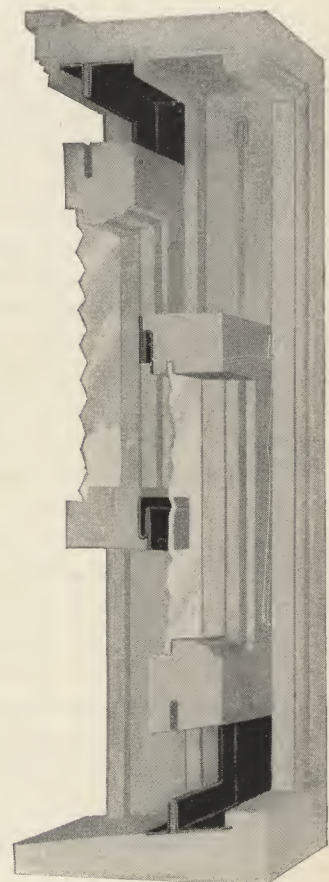


In-opening casement window in closed position. Protection is nearest the weather.

Craig Channel Bar

in Brass, Zinc, with Drip
(Patented)

For in-opening casement windows, this equipment is unsurpassed. It is non-leakable. Visible interlocking assures perfect installation and continuous protection across double casements.



For further details and
literature write to:

NIAGARA METAL WEATHER STRIP CO.

37 W. Tupper St.
Buffalo, N. Y.

ANACONDA COPPER BRASS AND BRONZE

Eliminate Costly Repairs and Replacements

...by using Anaconda Brass Pipe, Copper leaders and gutters, Bronze screens and solid Brass or Bronze hardware in your home. Copper and its alloys brass and bronze cannot rust. They are economical because they last indefinitely.

IF iron or steel pipe is used for water lines in your house, rust will inevitably develop. You may think that the water pressure is weak, whereas the real trouble lies in the fact that rust has clogged the pipe and reduced the flow. Discolored and uninviting water is further evidence of what sanitary engineers call the "red plague."

Some householders call in a plumber at this stage to have the rusty pipe replaced. Others delay until rust has completely clogged the pipe or eaten through to cause damaging leaks.

You will never have such annoyance or expense if you install Anaconda Brass Pipe for hot and cold water lines. Anaconda Brass Pipe *cannot* rust and discolor the water—*cannot* clog with rust deposits to reduce the flow—*cannot* rust through and leak. It will last, in perfect condition, indefinitely.

Yet Anaconda Brass Pipe is not expensive. It can be installed in the average eight-room house for about \$75 more than rustable pipe.

It is conservative to say that in order to provide water service at all comparable to that which is assured by the use of Anaconda Brass Pipe, it would be necessary

to replace iron or steel pipe at least every fourteen years.

To install iron pipe in the average eight-room house, and then rip it out when rust-clogged, would cost at least \$1,000 more than Anaconda Brass Pipe over a period of thirty-five years. This means that Anaconda Brass Pipe



Brass pipe for hot and cold water lines is no longer the exception—it is the rule in well built houses all over the country.

saves about \$30 yearly, in addition to assuring a plentiful supply of clear, clean water.

* * *

Anaconda Copper used for gutters, rain-pipes and flashings, likewise saves upkeep and repair expense.

When iron or steel is used for the rain disposal system of a house, it is sure to rust and to



Above are shown two pieces of pipe taken from the same building under identical service. At the left is Anaconda Brass Pipe, still perfect. At the right is iron pipe, clogged with rust.

require repairs and replacements. Coating or painting can do no more than delay the ravages of rust. On an average, replacement of iron or steel gutters and rain-pipes is required every seven years.

Country-wide figures prove that copper sheet metal work, which requires no painting or upkeep costs whatsoever, saves the owner of an eight-room house an average of \$24 a year, as compared with the cost of maintaining and replacing gutters, rain-pipes and flashings of rustable metal.

* * *

In screens, also, Anaconda Bronze proves its economy. The fine wire of which screening is made is an easy prey to rust if iron or steel is used. Painting is costly and bothersome, fills the mesh so that the screens are hard to see through, and is only temporarily effective in preventing rust. The cost of replacement is high because the labor of framing screens represents a large part of the expense.



For further details and literature, write to:

THE AMERICAN BRASS COMPANY

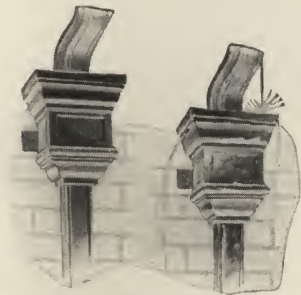
GENERAL OFFICES
WATERBURY, CONN.

Anaconda Copper Brass and Bronze (Continued)

Anaconda Bronze is strengthened copper. That is why bronze screens are not only rust-proof, but are strong and will not sag or bulge.

Brass or bronze likewise proves economical for the hardware of the home.

Hardware made of steel, brass-washed or plated, is sure to rust when the thin plating wears off, and rust stains will then mar the

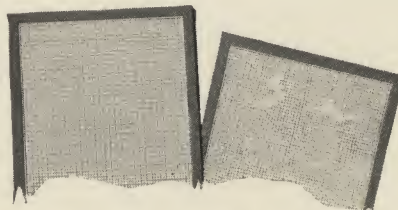


It pays to install gutters, rain-pipes and flashings of Anaconda Copper. They are permanent. They save the cost of paint, repairs and replacements—because they CANNOT rust.

woodwork. In cheaply constructed houses it is not at all unusual to see rust stains marring the woodwork even before the house has been occupied.

For lasting satisfaction — and economy—it is advisable to select solid brass or bronze hardware, for it will remain beautiful and serviceable as long as the house stands.

Today, more than ever before, the use of permanent materials is a sound investment for the home owner. With the higher cost of labor, the building dollar is best conserved when labor is given dependable and permanent materials to work with—for then this cost is incurred but once. Make your building dollar do its utmost. Free yourself of the “third mortgage” of repairs and replacements due to rust.



Iron screens rust and are a spring-time annoyance and expense. Screens of rust-proof Anaconda Bronze (strengthened copper) do not bulge or sag. They last indefinitely.

It may be surprising to learn that rust costs homeowners more than fire. Figures from all sec-

tions of the country show that it costs about \$60 a year in the average seven or eight room house to maintain rustable water pipe, metal work and screens. This expense and the annoyance and damage caused by metal failures is entirely eliminated with Anaconda Copper, Brass and Bronze — metals that cannot rust. Their initial first cost is about \$300 more than rustable metal for the average \$15,000 house but is soon absorbed in the yearly savings. From every standpoint — economy, convenience and comfort—rust-proofing is one of the best investments in home building offered.

For further facts on the advantages of Copper, Brass and Bronze, send for a copy of the booklet, “Rust-Proofed.” It will be sent without cost to all who request it. Address “Building Service Department,” The American Brass Company, General Offices, Waterbury, Connecticut.



For further details and literature, write to:

THE AMERICAN BRASS COMPANY

GENERAL OFFICES
WATERBURY, CONN.

COPPER ROOFING ACCESSORIES

Bronze and Copper Screen Cloth, Etc.

CHASE BRASS & COPPER CO.

Successor to U. T. Hungerford Brass & Copper Co.

HOME OFFICE: WATERBURY, CONN.

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CINCINNATI
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SAN FRANCISCO
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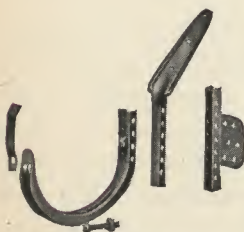
Round Corrugated
Copper Leader



75° No. 3
Copper
Leader Elbow



Copper
Leader Strap



Monarch Shank and
Circle Copper Gutter
Hanger



Copper Gutter

Products

Copper Leaders, Gutters, Mitres, Elbows, Shoes, Strainers, Gutter Hangers, Etc.

Genuine Bronze and Pure Copper Insect Screen Cloths.

Copper Nails, Copper and Bronze Tacks.

Chase "Star Brand" Copper Roofing Accessories

are economical because they cannot rust and will never require painting or replacement. *The first cost is the last cost.*

Standard sizes and shapes available for immediate delivery from our warehouse stocks, comprise

Copper Leader, 10 Ft. Exact Lengths

Round, Plain, 2", 2½", 3", 4" and 5" diameter.

Round, Corrugated, 2", 3", 4", 5" and 6" diameter.

*Square, Corrugated, 2", 3", 4" and 5" diameter.

*From long custom this type of Leader is termed "Square" whereas it is in reality Rectangular in shape. Actual measurements of 2-inch "Square" Leader are 1¾"x2¼", 3-inch—2¾"x3¼", 4-inch—2¾"x4¼", 5-inch—3¾"x5".

Copper Leader Elbows, Shoes, Straps, Strainers and Heads

in types and sizes to correspond with Leaders as above.

Copper Gutter, 10 Ft. Exact Lengths

Half Round, Single Bead, 4", 5" and 6" diameter.

Copper Gutter Mitres, Ends and Caps

4", 5" and 6" diameter.

*Copper Gutter Hangers

"Monarch" Shank and Circle, 4", 5" and 6".

"Rex" Strap, 4", 5" and 6".

"X-L" Strapless, 4", 5" and 6".

*Galvanized or tinned iron hangers should *never* be used with Copper Gutter. Chemical action and ultimate destruction of the hanger will inevitably result. Always use Copper Hangers with Copper Gutter and fasten with Copper Nails.

"Hungerford" Genuine Bronze and Pure Copper Screen Cloths

for doors, windows and porches, are strong, durable materials that cannot rust and never need painting. Here again, *the first cost will be the last cost.*

Iron or steel wire screening, even when galvanized, will inevitably rust. Moreover, it requires frequent painting, which means added expense.

The difference in cost between either "Hungerford" Genuine Bronze or Pure Copper and Galvanized screening is negligible.

Insist upon Hungerford Genuine Bronze and Pure Copper Screen Cloths. Our label on an unopened roll is a guarantee of quality and dependability.

Sizes available for immediate delivery from our warehouse stocks comprise 14, 16 and 18 Mesh, all even widths from 18 to 48 inches, in standard rolls of 100 Lineal Feet.

Copper Nails and Tacks

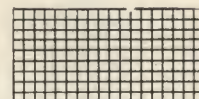
are also available for immediate delivery from our warehouse stocks in all standard types and sizes. The heads on Copper Shingle Nails will *never* rust and snap off. Copper nails are now being used extensively for laying wood and composition shingles.

Consultation

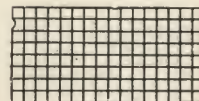
with our department managers and specialists is freely invited.



Bronze
Screen Cloth



18 Mesh



16 Mesh



Copper Shingle and
Slating Nails



For further details and literature, write to:

CHASE BRASS & COPPER CO.
Makers of Alpha Brass Pipe

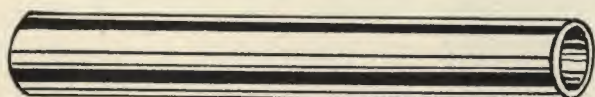
Write Nearest Office or—
236 Grand St., Waterbury, Conn.

Brass, Copper and Bronze Supplies for the Home

Made by
T. E. CONKLIN BRASS & COPPER CO., Inc.
 54-60 Lafayette Street, New York, N. Y.
 Member Copper & Brass Research Assn.

Products

This company carries for immediate shipment a complete line of Brass, Copper and Bronze Supplies for the Home, including—Brass and Copper Pipe and Pipe Fittings, in plumber's sizes; Sheet and Roll Copper for roofing and flashings; Copper Leaders and Gutters; Bronze and Copper Screen Cloth; Copper Nails, etc. Also Rods, Wire, Tubes, Channels, Angles and other shapes in Brass, Copper, Commercial and Phosphor Bronze, Low Brass and Nickel Silver. Write for price list on material in which you are interested.



Seamless Brass and Copper Pipe

All sizes for plumbing and steam-fitting carried in 12-foot lengths for immediate shipment. Larger sizes can be furnished on short notice. Home builders have learned the value of non-rusting brass and copper pipes in connection with plumbing fixtures and look with favor on the building contractor who incorporates them in his plans.



Cross



Tee



Elbow, 90°



Coupling

Brass Pipe Fittings

A complete line of Elbows, Crosses, Tees, Couplings, Unions, Bushings, Caps, Plugs, Nipples, etc., carried in stock for immediate shipment.

Sheet Copper for Roofing and Flashings

Hot Rolled (or Soft) Copper in sheets 30x60", 48x72", 20x96", 24x96", 36x96"—all gauges from 96 oz. to 10 oz. Cold Rolled (or Half Hard) Copper in patent leveled sheets, 36x96", 30x60", 24x96", 30x96", 24x48", 14x48"—all gauges from 36 oz. to 12 oz. We can also furnish copper in rolls, any width, length and thickness desired for immediate stock delivery.

Copper Leaders and Gutters

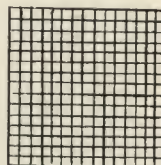
Our line of copper roofing material is very complete, including copper leaders, round or square, plain or corrugated; copper gutters and gutter hangers; leader elbows; gutter mitres; leader straps and strainers, etc.

A copper roof with copper gutters and leaders is a fitting crown for the well-built home and costs less than most people imagine. Weathers beau-

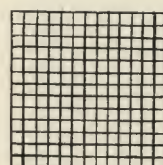


tifully, improving in appearance with the lapse of time, and is light, fire-proof and everlasting. On receipt of rough sketch of roof we will gladly quote on the necessary amount of sheet copper for roofing and on gutters, leaders, etc.

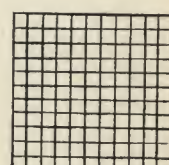
Bronze and Copper Screen Cloth



18-MESH



16-MESH



14-MESH

While we make both copper and bronze screen cloth—both of the finest quality—we unhesitatingly recommend the latter (bronze) for window, door and porch screens because of its better wearing qualities and greater strength.

Pure copper metal is naturally soft and when copper wire is woven into screen cloth it does not have the necessary firmness and resiliency to withstand the buffeting of wind and rain without showing signs of wear. If a harder copper wire is used the screen cloth is brittle and breaks easily.

The ideal material for screen cloth (as has been proven by many years of experience) is Commercial Bronze, an alloy consisting of 90 per cent copper and 10 per cent zinc. The addition of this small amount of zinc to the copper not only increases its resistance to corrosion, but gives it the necessary mechanical strength so necessary in window, door and porch screens, particularly when exposed in large surfaces to wind pressure.

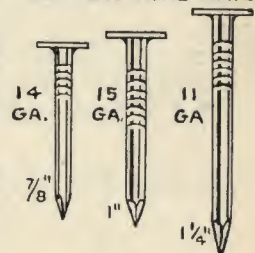
Our Bronze Screen Cloth has practically the tensile strength of steel and makes a firm, non-sagging, rust-proof screen that never requires painting and always presents a handsome appearance.

Bronze Screen Cloth costs but little more than copper but it is so superior in wearing qualities that we unhesitatingly recommend it. Copper Screen Cloth can be furnished, however, if desired, and you will find nothing better on the market—made of copper wire 99 per cent pure copper, which is as pure as copper can be produced commercially.

Copper Nails and Tacks

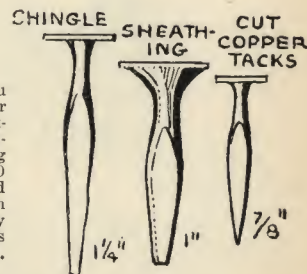
For shingling, sheathing and for all other uses where nails are exposed to the weather, rust-proof copper nails should be used. We can furnish from stock Copper Cut Nails and Copper Wire Nails in sizes suitable for roofing, sheathing, etc.

COPPER WIRE NAILS



Our Experts Are At Your Service

If there is any information you desire regarding the use of brass or copper in home construction, our experts will gladly answer your questions. We have been manufacturing copper, brass and bronze since 1860 and believe we are as well qualified as anyone in this business to furnish you first with the information you may desire and later with such materials as you may need. Consult us freely. You will find our advice helpful.



COPPER LEADER-CORRUGATED



COPPER GUTTER



For further details and literature, write to:

T. E. CONKLIN BRASS & COPPER CO., Inc.

54-60 Lafayette St.,
 New York, U.S.A.

Wheeling Hand-Dipped Conductor Pipe

New York
Philadelphia
St. Louis
Kansas City

Made by
WHEELING CORRUGATING COMPANY
WHEELING, WEST VIRGINIA

Chicago
Chattanooga
Minneapolis
Richmond

Products

Wheeling Hand-Dipped Conductor Pipe (Hand-Dipped in Pure Molten Zinc), Arch Lath, Expanded Metal Lath, Roofing Ternes, Spanish Metal Tile and Fixtures, Metal Shingles, Metal Corner Beads, Metal Ceilings. For description of other Wheeling Products for home and building construction see page 80.

Permanency of Construction

The efficient drainage of water from the roof of your home is important, but what most concerns you at this time is selection of the Conductor Pipe that will give you permanently satisfactory service at low cost. The base metal of Wheeling Hand-Dipped Conductor Pipe is the well known Copper-Alloy, OHIO METAL. Ohio Metal resists rust—and therein lies the secret of its popularity. However, we have not stopped with providing the finest base metal obtainable. After the Conductor Pipe is completely formed from Ohio Metal, it is Hand-Dipped in Pure Molten Zinc. The Ohio Metal base is completely imbedded in a thick, impenetrable coating of pure zinc, thoroughly and *uniformly* protecting seams, edges and surfaces. This means that Wheeling Hand-Dipped Conductor Pipe is made doubly durable because it is doubly protected against the elements.



Send for Sample

We will gladly send Architects and prospective home-builders a sample of Wheeling Hand-Dipped Conductor Pipe for close-up inspection. This will enable one to judge accurately the thoroughness of manufacture and to see the protection given to seams, edges and surfaces by the Wheeling Hand-Dipping Process.

Keeping Within the Budget

Wheeling Hand-Dipped Conductor Pipe enjoys a country-wide reputation for permanently economical service. It enables you to use the most serviceable roof-drainage system at a cost which helps you to keep within your building budget. Ask your architect and contractor to use it. Any additional information you require will be gladly furnished upon request.

Eaves Troughs and Fittings

Wheeling Eaves Trough, Fittings, Elbows and Shoes are made with the same exacting care, and of Ohio Metal, Copper-Alloy. These products, like all Wheeling Building Materials, are the result of thirty-six years' manufacturing experience. They insure accurate fit in installation, attractiveness, serviceability and permanence.

Wheeling Roofing Ternes



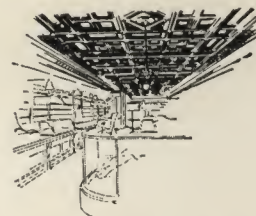
For over a quarter century, Wheeling Roofing Ternes have made permanently satisfactory tin roofs for every type of building. These Plates are made from OHIO METAL, the extensively used Copper Alloy Sheets! They are heavily coated with new tin and new lead by the Wheeling Hand-Dipping Process. The tin roof offers many important advantages—fire-proof, lightning-proof construction—lower building costs, reduced insurance rates—that every home builder should consider.

Wheeling Metal Spanish Tile



The beauty and rare charm of the early Spanish-built roofs are retained in the Wheeling Metal Spanish Tile roof of today. Massiveness, without undue weight, is also a feature! The base metal used for tiles and fixtures is the well known Copper Alloy, OHIO METAL. After forming, the Tile is Hand-Dipped in Pure Molten Zinc, protecting edges and surfaces. Ohio Metal, plus Hand-Dipping, insures a roof of enduring beauty at low cost. The Wheeling Metal Spanish Tile Roof is easy and economical to erect—rust-proof, lightning-proof and leak-proof. Ask your dealer or write us.

Wheeling Steel Ceilings



The Steel Ceiling is a permanent ceiling. It is an exceptional fire retardant. It is ornamental, sanitary and easy to clean. No falling plaster. Can be applied over old ceilings quickly and economically.

There are many different designs for use in homes as well as many other types of buildings where fire hazards must be reduced, and where pleasing effects and freedom from frequent repairs are desired. Wheeling Steel Ceilings have given years of satisfactory service, setting standards of excellence and durability that remain unsurpassed.



For further details and literature, write to:

WHEELING CORRUGATING COMPANY

WHEELING,
W. VA.

THE GAS-FIRED HOME INCINERATOR

Manufactured by
THE HOME INCINERATOR CO.
MILWAUKEE, WIS.

Leading builders all over the country are installing the gas-fired Home Incinerator, because it gives their clients the very latest and most modern means of garbage and waste disposal at a very low cost.

"What is our opinion of Home Incinerators? We use them exclusively in all our residence work, as you no doubt have noticed by the orders we place with your concern.

"Geo. Schley & Sons, Builders," Milwaukee, Wis.

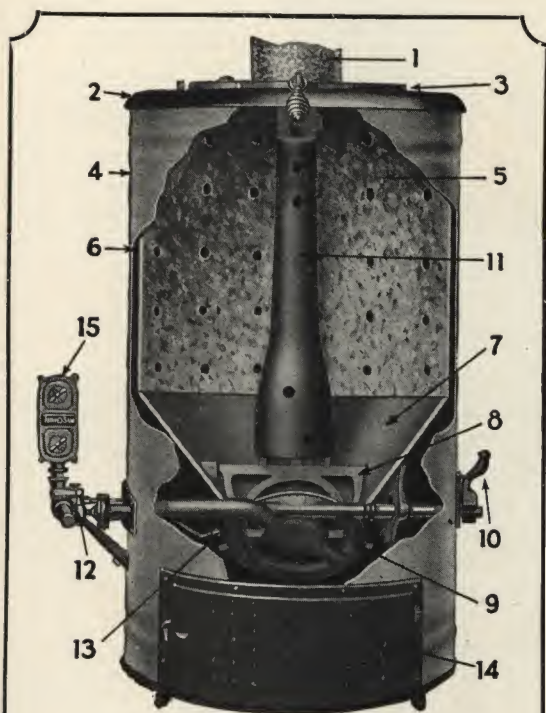
Here are some of the most important facts about this remarkable invention. It is portable and gas-fired.

It is simple and easy to install in the basement of any gas-serviced home. A gas connection is made to the machine, and a stove pipe is run from the top of the machine to the regular flue.

It is as simple to operate as a gas stove or a water heater, and it may be easily disconnected and moved.

Burns Rubbish and Garbage—Wet or Dry

This Incinerator burns both garbage and trash—wet or dry. You cannot clog it with green or wet rubbish or garbage of any kind. It first dries the accumulations by the gas flame, then burns them to a mere handful of ashes. The combustion is perfect.



1. Standard 6" Galvanized Stove Pipe.
2. Cast Iron Top—23" diameter.
3. Cast Iron Cover, 14" diameter. Operates easily.
4. Outside Galvanized Iron Drum, 18 gauge.
5. Perforated Galvanized Iron Inner Drum, 16 gauge.
6. Smoke, Steam and Air Chamber, 1" between outer and inner drums.
7. Heavy, Cast Iron, Self-Feeding Crematory Bowl.
8. Special 2-piece Cast Iron Grate, gear operated.
9. Special Burner with side holes. Insure complete incineration.
10. Dumping Lever, easily operated.
11. Cone shaped, Cast Iron Garbage Dryer and Heater Pipe, 21" long.
12. Gas Valve for Burner.
13. Lighter for Gas Burner—push button type.
14. Ash Pan Door, 15" opening.
15. Timeostat Automatic Gas Shut-off Valve.

Important Facts About the Home Incinerator

The Home Incinerator is manufactured in two convenient sizes, the two-bushel capacity machine and the three-bushel capacity machine, and can be equipped with an automatic gas shut off valve, which automatically shuts off the gas at any time up to three hours. In the average family the Home Incinerator need be burned but once or twice a week or whenever nearly full.

Exclusive Features of the Home Incinerator

A cast iron fire bowl that will never burn out is an exclusive feature of the HOME INCINERATOR. This bowl also provides an automatic feed which delivers the accumulations to the flame.

Another exclusive feature is the Drier Pipe which extends up through the center of the mass and conducts the gas heat to every part, thus drying out the garbage quickly.

A specially-constructed grate which dumps is another exclusive improvement. This enables you to dump the ashes from the fire bowl into the ash box at any time. It also relieves the fire bowl of tin cans, glass or any other unburnable substances without clogging it.

An Incinerator You Can Recommend

The gas-fired Home Incinerator has passed the most rigid tests of both the Priscilla and the Good Housekeeping institutes. It is an Incinerator that you can recommend to your friends and not be ashamed to look them in the eye later.

It is GOOD. It is STANDARDIZED. It is a phenomenal SUCCESS.

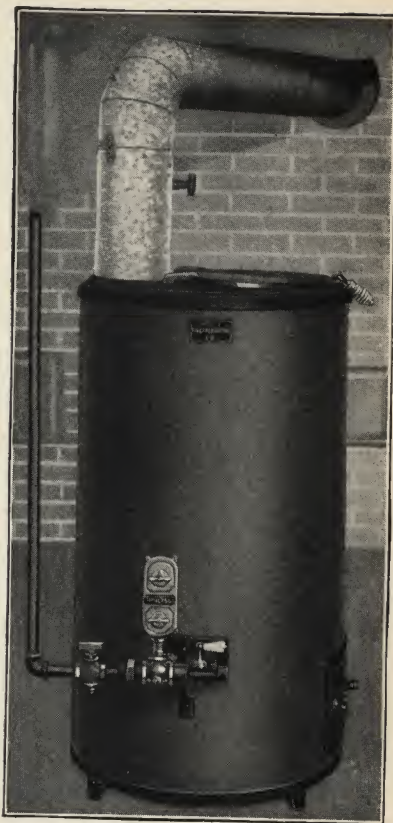
You can keep this thought uppermost when buying or recommending the purchase of a Home Incinerator:

I am aiding the cause of Better Homes, Cleaner and more Sanitary Homes—Greater Convenience for the Home Keeper, Safety for the Children, and I am helping to Conquer the Menace of Fire.

Every home NEEDS this capable, safe and convenient gas-fired Incinerator.

Endorsed and displayed by Gas Companies everywhere.

May Be Installed Complete for Less Than \$100



For further details and literature, write to:

THE HOME INCINERATOR CO.

MILWAUKEE
WISCONSIN

HOME BUILDERS CATALOG

Members of the American Gas Association

See Pages 392-395

KERNERATOR

REG. U.S. PAT. OFF.
THE CHIMNEY-FED INCINERATOR

Branches or
Agencies in All
Principal Cities

*Garbage and Waste Disposal
without Leaving the Kitchen*

See Local
Telephone Book
for Addresses

Made by

THE KERNER INCINERATOR COMPANY

Milwaukee, Wis.

Product

The KERNERATOR Built-In-The-Chimney Incinerator for the prompt, safe and sanitary disposal of garbage and rubbish of all kinds by burning without cost. Made in various sizes to meet requirements of small and large residences and apartment buildings. Also for schools, hospitals and other buildings.

Description (Refer to illustration)

The KERNERATOR consists of a brick combustion chamber, with fire brick lining, located in the basement of the building, into which is built a special arrangement of grates with patented by-pass flue to provide proper draft control for complete, successful and odorless combustion of garbage and all waste.

One or more receiving hopper doors (shown above) are located in the flue (regular chimney) on the floor or floors above. In homes the hopper door is located in or near the kitchen. The flue serves as a fall-way for garbage and waste deposited in the hopper door; also as a chimney to carry off the products of combustion during burnings.

The KERNERATOR is constructed in accordance with detailed working drawings, which are furnished with the parts. The drawings are clear, and the construction simple—so that the mason has no difficulty in building it.

Operation (No Gas, Coal or other commercial fuel required)

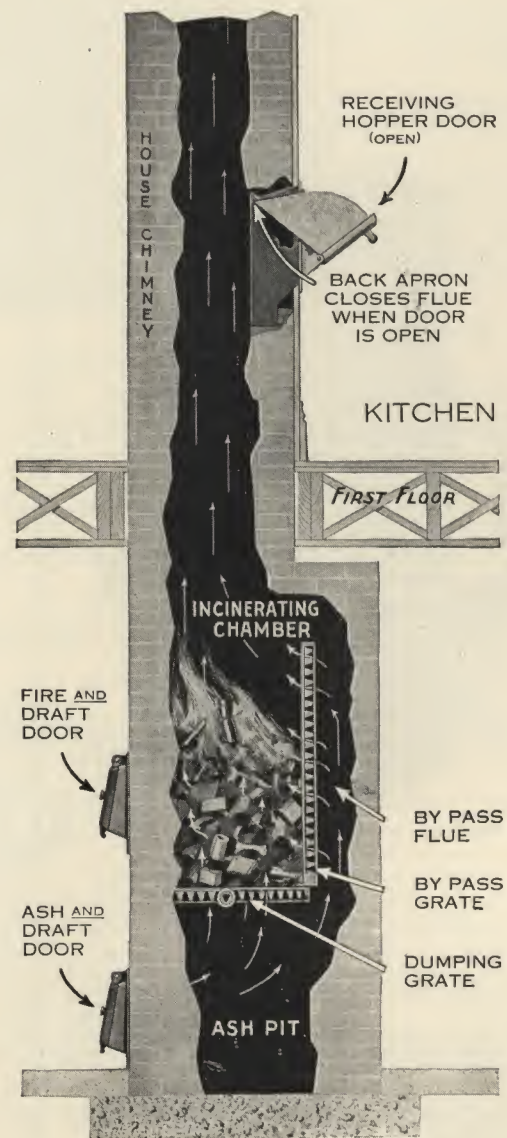
Not only garbage but *all* rubbish and waste—sweepings, waste paper, wilted flowers, rags, tin cans broken bottles—everything that is no longer wanted is dropped into the hopper door and falls down the flue into the incinerator in the basement. When the incinerator chamber is nearly full the waste is lighted (a match does it) and burns itself up. Non-combustibles (tin cans and the like) are flame sterilized and dumped into the ash pit for removal along with the ashes.

By-Pass Flue and Vertical Grate

At the side of the horizontal grate on which refuse falls is the by-pass or vertical grate. Behind this is the by-pass or secondary flue. This patented arrangement permits air to pass up from the ash pit through and over the material on the horizontal grates. Between burnings this circulation of air causes considerable evaporation. During burnings air comes up this flue, passes through the vertical grate, and feeds heated oxygen to the top of the fire, which is always on top of the burning materials. As the heat liberates the gases from the material underneath, these gases pass up through the flames and are consumed. This is what enables the KERNERATOR to destroy all waste without the use of commercial fuel.

The Handy Hopper Door

Is conveniently located in the kitchen, where table refuse is immediately disposed of without leaving the room. No trips outside to a garbage receptacle. No accumulation of rubbish in cellar or attic waiting for "Clean-up Week."



Sectional view showing interior construction and operation of KERNERATOR. Notice the draft reaching point of burning through by-pass grate. The fire burns from top downward, consuming offensive odors.



For further details and
literature, write to:

THE KERNER INCINERATOR COMPANY

702 E. Water St.
MILWAUKEE, WIS.

KERNERATOR The Chimney-Fed Incinerator (Cont'd)

REG. U.S. PAT. OFF.

For Garbage and Waste Disposal

Kernerator Advantages

The KERNERATOR destroys all refuse on the premises where it originates—destroys it by burning—burns it without cost in the most sanitary, convenient and economical way, and with only one handling.

IT'S SANITARY. Unsightly garbage cans are banished. All insanitary refuse containers, pits and screened locations are done away with. Nothing to draw flies or other disease-carrying insects or vermin. Authorities agree that the proper method of garbage and waste disposal is to burn it on the premises where it originates.

IT'S SAFE. Garbage cans and waste piles are fertile breeding places for disease germs. Accumulations of rubbish in the basement are an ever-present fire and health hazard. The KERNERATOR eliminates this nuisance and danger.

IT'S CONVENIENT. The safe disposal of all table, kitchen and household waste is done immediately without effort. Seventy per cent of the

housewife's time is spent in "cleaning up." Much of this time is saved by the handy KERNERATOR door, right there in the kitchen.

IT'S ECONOMICAL. The KERNERATOR costs nothing to operate. No gas, coal or other commercial fuel is required. The waste itself is fuel for its own destruction.

Include Kernerator in Building Plans

The KERNERATOR, being a built-in unit, should be included in the plans, when provision can be made for a flue of proper size and location for placing the hopper door in or near the kitchen.

Minimum Flue Sizes (inside dimensions)

Where but one receiving door is installed on the first floor, the flue dimensions must be 12x12 inches or larger. Where an additional hopper door is also installed on second floor of residence, the inside dimensions of the flue should be 16x16 inches.

Flue Can Serve Other Equipment

The smoke or vent pipes from water heaters and kitchen ranges may be connected to the KERNERATOR flue if desired, without any interference with their operation or that of the Incinerator. All pipe connections from other equipment must be made directly into the flue above the incinerator chamber.

Fire-place flues must not be in any way connected to the KERNERATOR flue.

In Existing Residences

If there is a flue at least 12x12 inches located in or near the kitchen the standard KERNERATOR, with the convenient hopper door, can be installed in an existing home. If there is no such flue, then it is difficult and generally impossible to install a standard KERNERATOR with a hopper door. What is termed the "basement-fed" type can be used in a home where flue of proper size is not available.

Residences Without Basements

In many locations where homes are built with no basements, the KERNERATOR is placed against the outside of the building with the hopper door inside—and located in or near the kitchen.

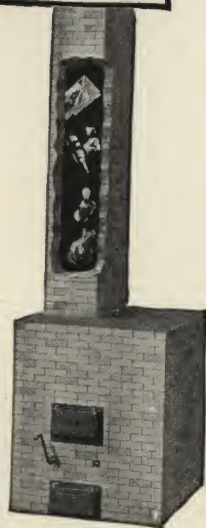
Special Service

We have layout sheets showing all the standard KERNERATOR models, and with different basement layouts for each model. One of these will undoubtedly fit into your plans without any changes. These layouts will gladly be mailed on request.



A Sectional View of a KERNERATOR as Installed in the Average Home with the convenient Hopper Door in the Kitchen—A Feature Highly Prized by Every Housewife

Suggest the KERNERATOR to your clients in plenty of time—for it must be built in while the mason work is under way. They will welcome the suggestion enthusiastically when you mention it and will be thankful to you always for freeing them from "Garbage Can Slavery."



For further details and literature, write to:

THE KERNER INCINERATOR COMPANY

702 E. Water St.
MILWAUKEE, WIS.

The "Kahn" Incinerator

Manufactured by

KAHN PRODUCTS CO.

2216-18 W. Columbia Ave., Philadelphia, Pa.

"Kahn" Incinerator

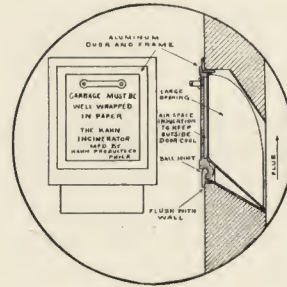
Made in seven standard sizes for installation in residences, apartment houses, schools, hospitals and institutions. The entire outfit consists essentially of a combustion chamber built in the basement, the stack or flue with receiving doors at each floor landing, and the grates, lighting and ash pit doors.

The refuse is wrapped in paper and dropped through the receiving doors to the combustion chamber. When a sufficient amount has accumulated in the combustion chamber (generally about once a day) it is ignited through the lighting door. There is no fuel required for maintenance of the "Kahn"; the garbage and refuse bundled in waste paper are sufficient to consume all materials and odors.

The "Kahn" Is Fireproof—The incinerator itself is so designed that it will create a powerful draft, and yet it is such that this draft can not in any manner operate as a fire hazard. The receiving doors, installed at each floor, are airtight and close automatically. They are lined with galvanized iron hoppers, especially designed so as to prevent smoke, flame or odors from emanating from the flue while refuse is being deposited.

The "Kahn" Handles All Refuse—Not only garbage but broken crockery, bottles and even tin cans may be deposited in the incinerator. The ash deposits underneath can be cleaned out at regular intervals through the cleanout door.

An Absolute Guarantee—"Kahn" Incinerators are guaranteed when installed in accordance with our detail drawings and specifications. Should our Incinerator fail in any



Features of "Kahn" Improved Receiving Door

(PATENT APPLIED FOR)

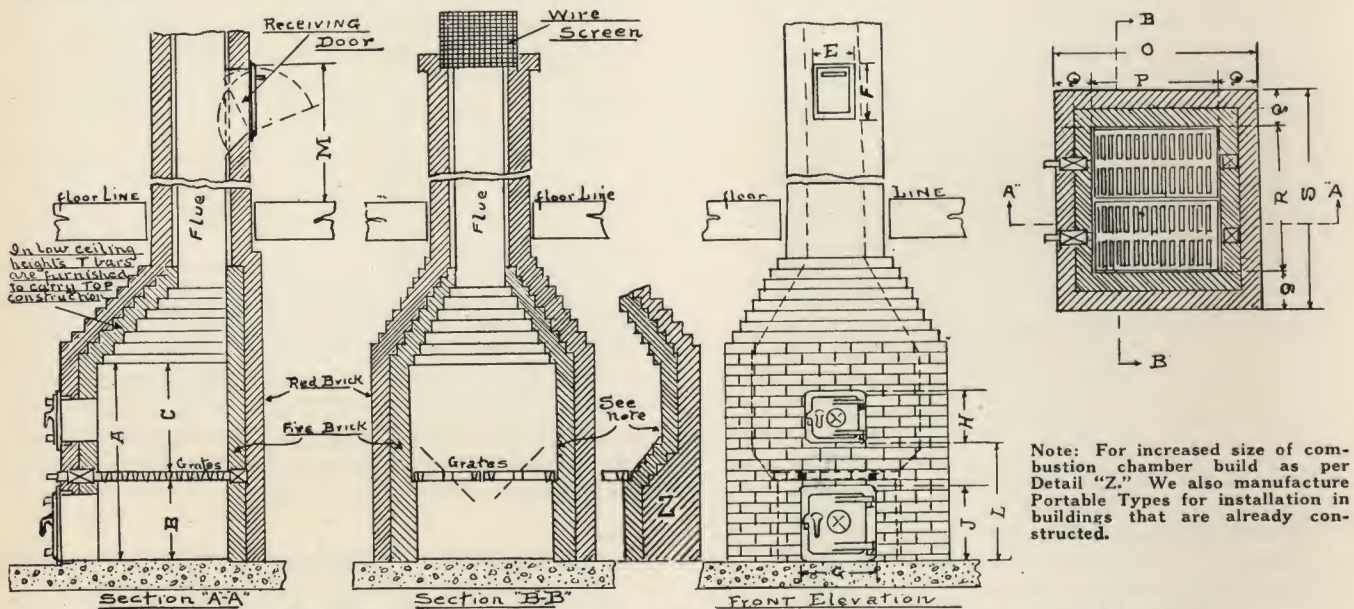
1. Fits flush with wall—no projection.
2. Extra large opening, 10" x 12".
3. Hopper can be completely lifted out of frame for depositing bulky quantities of refuse.
4. Concealed ball joint—no hinges to clog and break off.

way, we will either rectify the cause of the trouble or we will refund all payments and pay all transportation charges when parts are returned to us.

Write for testimonial letters from satisfied users. They will be mailed on request.

Architects' Specifications

The Incinerator shall be the Kahn, Type as made by KAHN PRODUCTS CO., 2216-18 West Columbia Avenue, Philadelphia, Pa., and shall be installed in accordance with the detail drawings as furnished by the manufacturers. All material shall be first class and the Incinerator shall be of such size to take care of the number of apartments as shown on plans.



Note: For increased size of combustion chamber build as per Detail "Z." We also manufacture Portable Types for installation in buildings that are already constructed.

DIMENSIONS AND SPECIFICATIONS OF THE SEVEN STANDARD SIZES OF "KAHN" INCINERATORS

| Type | Suitable for | * Size flue, in. | Number of fire bricks required | Sacks of fire clay required | Equipment furnished for "Kahn" | | | | | | | | | | Dimensions in in. as shown on diagram above | | | | | | | | | | | | | | |
|------|---|------------------|--------------------------------|-----------------------------|--------------------------------|---------------|----------------|----------------|---------|----------------|---------------|--------------|-------------------|----|---|----|----|-----|----|----|----|----|----|-----|-----|---|-----|-----|-----|
| | | | | | Receiving doors | Number grates | Lighting doors | Cleanout doors | Shakers | Front bearings | Rear bearings | Grate shanks | Wire screens, in. | | A | B | C | E | F | G | H | J | L | M | O | P | Q | R | S |
| A | Residences..... | 8x12 | 200 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 48 | 20 | 27 | 13 | 15½ | 21 | 17 | 21 | 30 | 45 | 42½ | 24½ | 9 | 18½ | 36½ | 114 |
| B | Residences and duplex..... | 12x12 | 250 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14x14 | 50 | 20 | 29 | 13 | 15½ | 21 | 17 | 21 | 32 | 45 | 50 | 32 | 9 | 18½ | 36½ | 114 |
| C | Four-flat type..... | 16x16 | 450 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 16x16 | 50 | 20 | 29 | 13 | 15½ | 21 | 17 | 21 | 32 | 45 | 50 | 32 | 9 | 36 | 54 | 72 |
| D | 6 to 20 apartments..... | 18x18 | 450 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 24x24 | 50 | 20 | 29 | 13 | 15½ | 21 | 17 | 21 | 32 | 45 | 50 | 32 | 9 | 37 | 55 | 72 |
| E | 24 to 60 apartments..... | 22x22 | 650 | 4 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 24x24 | 50 | 20 | 29 | 13 | 15½ | 21 | 17 | 21 | 32 | 45 | 50 | 32 | 9 | 54 | 72 | 114 |
| F | Schools, etc., up to 80 apartments..... | 24x24 | 1050 | 10 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | 24x24 | 50 | 20 | 29 | 13 | 15½ | 21 | 21 | 21 | 32 | 45 | 50 | 32 | 9 | 72 | 90 | 114 |
| G | 80 to 160 apartments..... | 24x24 | 3000 | 30 | 3 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 24x24 | 50 | 20 | 29 | 13 | 15½ | 21 | 21 | 21 | 32 | 45 | 50 | 32 | 9 | 96 | 114 | 114 |

*NOTE: Flues can be erected to the right or left, in the center or front, to suit any layout.



For further details and literature, write to:

KAHN PRODUCTS CO.

2216-18 W. Columbia Ave.
PHILADELPHIA, PA.

Anchor Wire Fences, Iron Railings and Gates

Manufactured by

ANCHOR POST IRON WORKS

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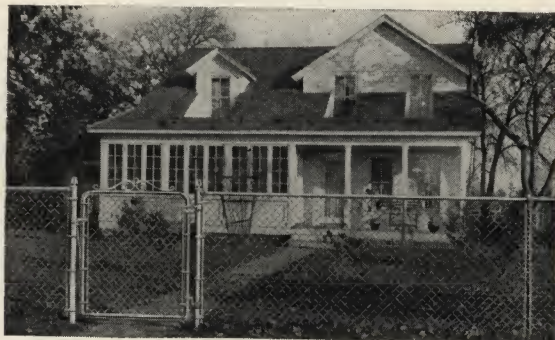
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Chain Link Fences and Gates in all heights and for every purpose. Wire Fences and Gates of other types. Tennis Fences, Poultry Fences, Kennel Fences, Farm Fences, Iron Railings and Gates.

Chain Link Lawn Fences and Gates

The Anchor Chain Link Lawn Fence, Type AFT-1, featured on this page, will appeal especially to contractors and builders. It is "A Real Fence at a Reasonable Price."

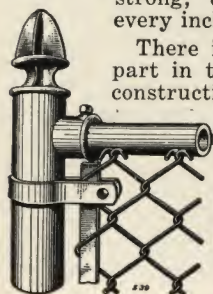
As we build this fence on a quantity production basis, with resulting economies in manufacture, we are able to produce a fence which, while low in cost, will insure, because of its strength and durability, years of satisfactory, trouble-free service. It is the result of our 35 years of experience in building fences of all types for properties in every section of the country.



Anchor Chain Link Fence, Type AFT-1
with Single Walk Gate

Remarkably Strong, Durable Construction Galvanized Throughout

Considering its low price and remarkably strong construction, we believe the Anchor Lawn Fence, Type AFT-1, is in a class by itself. It is in every sense a strong, durable, well-made fence throughout every inch of its length and height.



There is not a single weak or unsubstantial part in this Anchor Fence. It is of enduring construction because all of its parts—posts, Chain Link, top rail, gates and all—are GALVANIZED by the hot dip spelter process.

The sturdy line posts of high carbon steel flanged U-bars are twice as strong as any other fence post of equal weight.

The Chain Link fencing is made of



Copper-Bearing Steel Wire, No. 11 gauge, Galvanized after Weaving.

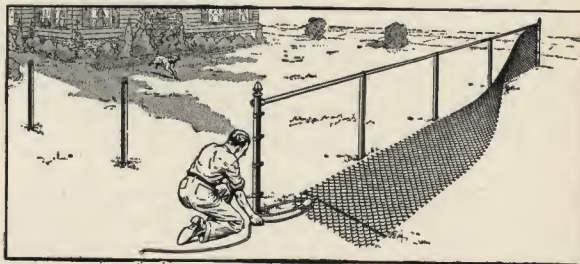
These are a few of the points that make an Anchor Lawn Fence a permanent, trouble-free investment.

Built 3 ft. 7 in. high, with Top Rail. Single Walk Gate, opening—3 ft. 6 in. Double Drive Gate, opening—10 ft.

Also made in Type AFO-1 without Top Rail, for boundary line use, 3 ft. 6 in. high.

Easy to Erect

The Anchor Chain Link Lawn Fence is so easy to erect that home owners frequently do the erecting work themselves.



This erecting work is a very simple procedure and can be done quickly and economically.

We furnish complete instructions.



Anchor Chain Link Fence, Type AFT-1
with Double Drive Gate

Catalog and Service

Our catalog No. 64 contains complete information regarding the Anchor Lawn Fence, its enduring construction and erection. We would welcome your request for a copy.

Anchor branch offices and sales agents are located in all principal cities and are prepared to promptly quote prices and to co-operate with you in every way possible.



For further details and literature, write to:

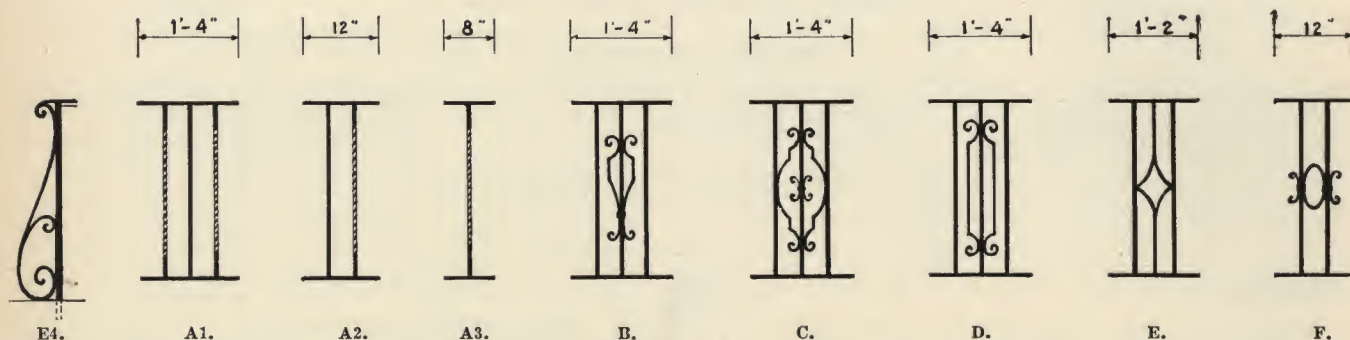
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Address Nearest Office
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ORNAMENTAL IRON and WIRE WORK

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STOCK PANELS

Designs as shown are suggestions in stock units from which combinations can be assembled. Savings can be made by using stock units for wrought iron railings and balconies. Note the various widths of stock panels and various designs. Very attractive effects can be obtained.

Wrought iron railings, balconies, chimney scrolls, hinges, lanterns, area gratings, and other wrought iron items are also made to suit your conditions. Send designs and dimensions for estimates. Note A panels, B panels, E panel assembled in designs S 22 and B 23.

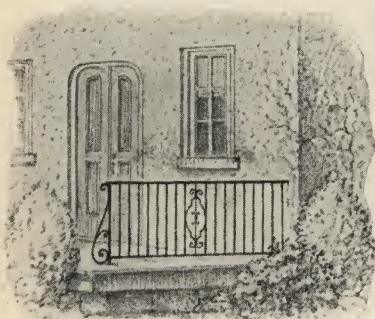
The height of all stock panels is 2 ft. 4 in. Vertical bars are $\frac{1}{2}$ in. square, electrically welded into 1 in. x $\frac{1}{2}$ in. channel frames, top and bottom. Finish, heavy coat outside black paint. They are crated and shipped knocked down ready to assemble.



Design S 22. Assembled stock units for over sun parlor porches and decks. Estimates will include flat top bar rails of wrought iron, end posts, braces, urns, bolts, and screws to make complete. Send sketch and dimensions for estimates.



Design B 23. Balcony rails. Complete wrought iron deck is optional or same can be applied to wood decks. Ornamental scrolls for supporting wood or wrought iron decks may be had if desired. Send sketch and dimensions.



Design E 24. Wrought iron rails, assembled units. Design as shown is using A panels, scroll post, flat top bar, of wrought iron section. Send sketch and dimensions of conditions for estimating.



Design E 25. Wrought iron starts at entrance are usually curved, which makes a home inviting and exceptionally attractive. You would be agreeably surprised how a little touch of iron work helps resale values.



Design P 26. Wrought iron rail between columns or piers. Send sketch and dimensions for estimate. Rails can be made of assembled units or special design. Prices will include rail and fasteners complete, ready to erect.

For the completion of the home, we carry a complete line of galvanized after weaving Chain Link fence, including ornamental top rails, gates, posts and fittings. This material is carried in stock for immediate shipment. Drawings will be submitted for erecting same. It is a simple matter to install Chain Link fencing and as this fencing is all hot galvanized after weaving, it is very lasting. A rough sketch showing corner post and end posts with dimensions of lot line will suffice for figures.

We also carry a complete line of wire trellises, arbors, lawn border and various items to beautify the lawn. If you have any special problems in iron and steel, we would be very glad to assist you.



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Ornamental Wire and Iron Work

Manufactured by
STANDARD IRON & WIRE WORKS
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The ornamental iron and wire work usually required in the construction of residences consists of Iron Railings for Porches, Entrance Steps and Stairs, Areas and Balconies. Wrought Iron Entrance Gates and Fences, Cast Iron Coal Chutes, Clean-out Doors, Ash Dumps, Anchors and Window Lintels, Wire Guards, etc.

We make a very complete line of these articles, and on this page give but a few suggestions for porch or balcony railings, gate entrances, etc.

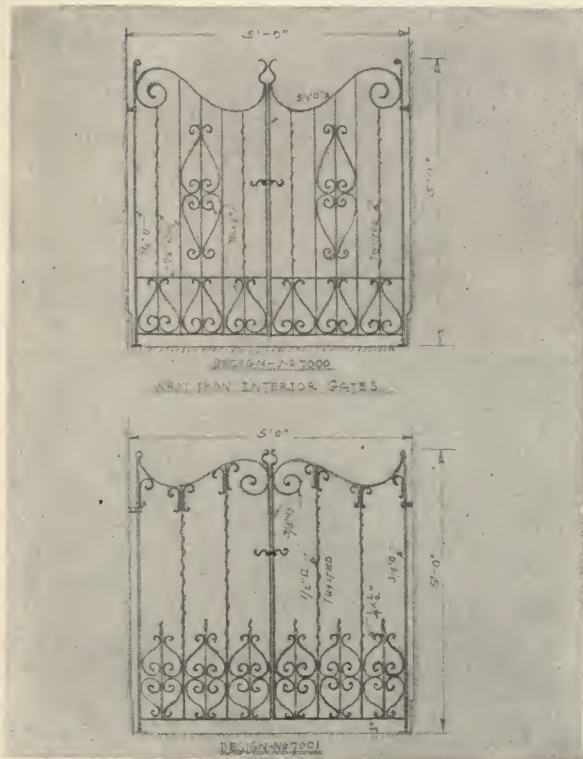
For Wrought Iron Lanterns, Door Hardware, etc., see page 233.

Certain Types of Houses Need Ornamental Iron Work

Colonial, English, Spanish and Italian types of architecture require the use of ornamental iron work such as iron railings, iron balconies, iron window grilles, iron door hardware, iron lanterns, etc., to finish them off, make them more complete, add to their beauty.

While these items do not add greatly to the building costs, they do add very materially to the attractiveness of houses of the type mentioned, and should never be overlooked.

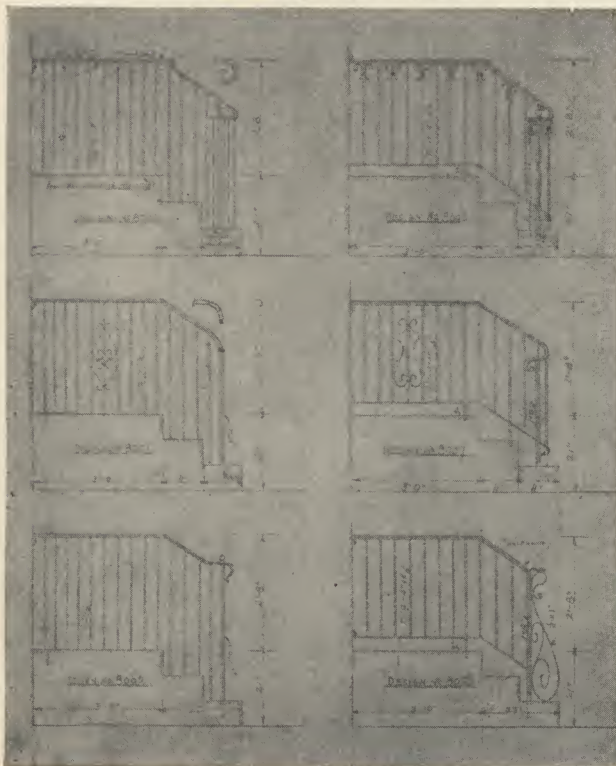
We issue a special folder on Wrought Iron Gates. Balcony and Porch Railings, Iron Balconies, etc., are described and illustrated in Catalog A-21.



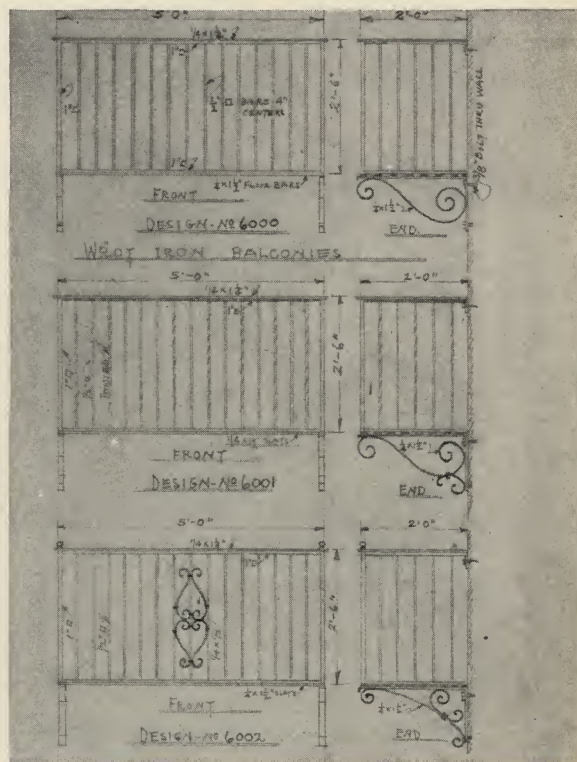
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IRON RAILS FOR STEPS



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Chain-Link Fencing for protection and ornamental purposes of every description.

Ornamental Wrought-Iron Fencing where added beauty is desired.

Ornamental Wrought-Iron Gates and **Entrances** for residences, parks, estates, etc.

Industrial Fencing for factories, mills, refineries, railroads, power stations, mines, yards, etc.

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Also manufacturers of Page "Hi-Way" Guard; Page Panel Partitions, made of Page Chain-Link fabric, for factories, offices, warehouses, stock rooms, etc.; Fencing and Entrance Gates of copper bearing steel for residences, estates, country clubs, etc.; Page Chain-Link Specialties; Window and Skylight Guards.

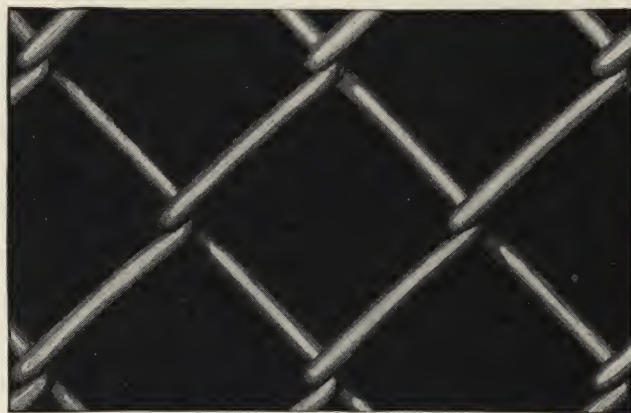
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The first wire fence ever made was designed by J. Wallace Page in 1883. For 45 years Page fences have been standards of good fence design.

The most rigid of inspection guarantees only per feet material being used.



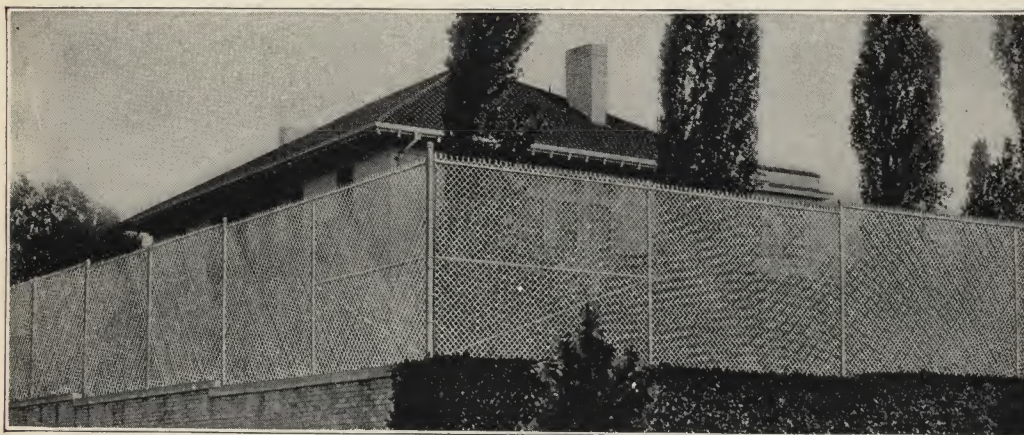
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This fabric is made in copper bearing steel. The standard weave for fence purposes is a 2-in. mesh made from No. 6 or No. 9 wire or a 1 1/4-in. mesh No. 11 wire for tennis courts.

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"The Watchman That's
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Page Protection Fence—"The Watchman That's Everywhere at Once"—stands guard at the boundary of these beautiful grounds. Page presents an impassable barrier and enhances the appearance of the property it protects.



For further details and literature, write to:

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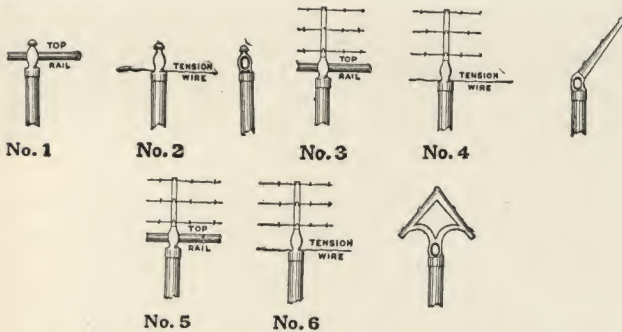
Page Fence Association

There Is a Page Distributor Near You

In each district of the United States and Canada there is a responsible firm of fence engineers that carries complete stocks of Page products and specializes in fence construction. This assures expert performance of the work all the way through, and gives the advantage of consultation with men of long experience in the erection of fences. Estimates and suggestions gladly furnished.

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Page Chain Link Fences are supplied in style and sizes to cover every protection purpose. The Chain Link fence itself gives an almost impassable barrier. Added protection can be provided, where desired, by use of barbed wire type strands. Below are styles available.



Six Styles of Page Protection Fence from Which to Choose

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| No. 1. Style 0-TR | No barbed wire—using top rail. |
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| No. 3. Style 3-TR | Three strands of barbed wire—Using top rail. |
| No. 4. Style 3-W | Three strands of barbed wire—using tension wire. |
| No. 5. Style 5-TR | Five strands of barbed wire—using top rail. |
| No. 6. Style 5-W | Five strands of barbed wire—using tension wire. |

Page Ornamental Wrought Iron Fence

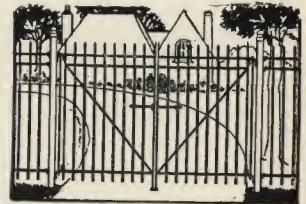
To insure lifetime service Page Ornamental Fence is made of Wrought Iron, "the most enduring of all

metals." The iron used in Page Ornamental Fence is made in our own mills, under Page supervision. Countless examples prove the durability of this wonderful material—the original anchor of Columbus; the chain across the Hudson that stopped the British; Benjamin Franklin's lightning rod on St. Paul's Cathedral; Wrought Iron nails from the White House. These examples, a century or more old, are still well preserved.

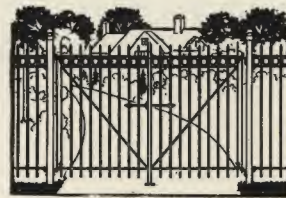
Page Ornamental Wrought Iron Fence designs embody the best of centuries of Wrought Iron craftsmanship. They have been standardized to give the economy of large production yet are available in a wide range to conform to the simplest or most elaborate requirement.



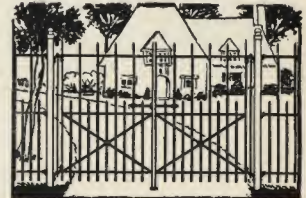
Page Ornamental Wrought Iron Gates—Style 1000. Panels and Walk Gates furnished to match.



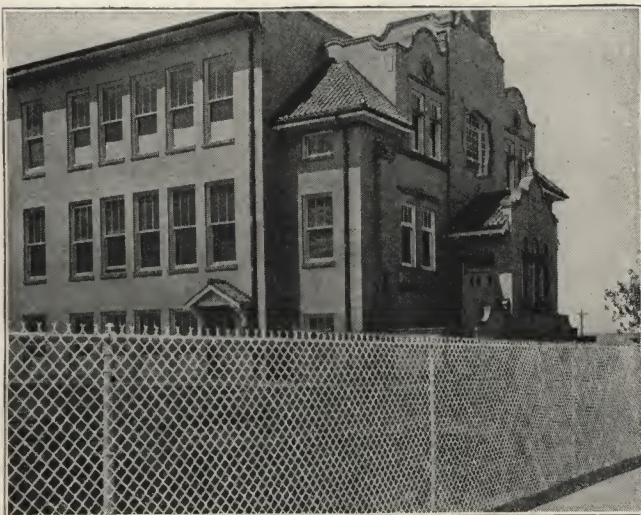
Page Ornamental Wrought Iron Gates—Style 2000. Panels and Walk Gates furnished to match.



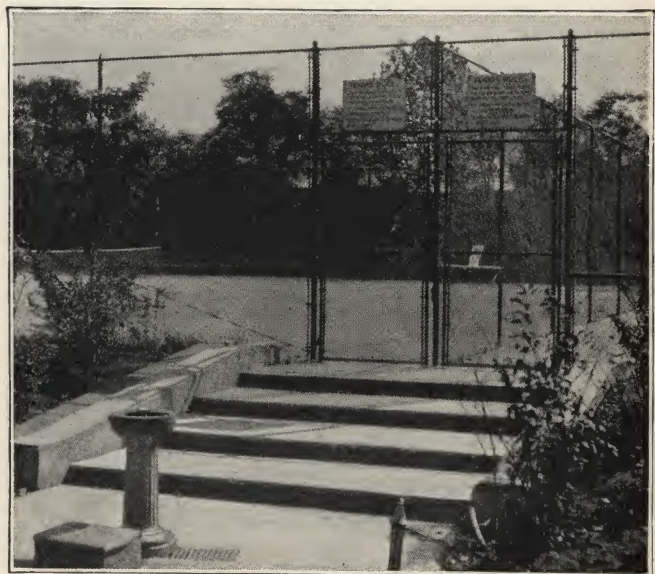
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Page Chain Link Fence offers permanent protection for school and institutional properties, for industries—"Protected property is respected property."



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Made in France and Imported Solely by
ROBERT C. REEVES COMPANY

LARGEST DISTRIBUTORS OF WOODEN FENCES IN AMERICA
187 Water St., New York, N. Y.



QUAINT GATEWAYS ADD TO ITS RUSTIC BEAUTY

HERE is a fence that does about everything any fence is supposed to do and more besides. It gives protection, shuts out trespassers, keeps people from looking in, adds picturesqueness, and lasts a lifetime.

In France, where this fencing is made, it has been used for generations, but it is new to this country and affords you the opportunity of delighting your home builders with something that is both extremely practical and artistic.

It harmonizes with any style of architecture and may be used with city or suburban homes with equally good results.

Made of Split, Live, Chestnut Saplings

Dubois is made by hand in France of split chestnut saplings, woven closely together and bound to horizontal braces with heavy, rust-proof Copperweld wire.

The saplings quickly mellow to a beautiful gray-brown tone, forming a natural background for shrubbery and flowering plants. No paint is required, so that vines need never be torn down, nor is it ever necessary to spend a cent on ordinary upkeep items, as Dubois withstands all kinds of hard usage and weather without having to undergo repairs.

Easy to Erect

Dubois is shipped in 5-foot sections, ready to erect



THE LAUNDRY YARD EFFECTIVELY HIDDEN

against a framework of chestnut or locust posts and connecting timbers. The posts should be placed about 8 feet apart, and be set 3 feet deep and extend 5 feet above the ground. Rough 2x4 inch spruce timbers make good connecting pieces, and should be fastened at the top and 1 foot from the ground. The sections of Dubois are simply nailed against this framework. Here is an extra source of profit to the Dubois dealer who can supply the material needed.

Owing to its flexible construction, the fence follows perfectly the contour of the ground, making it equally suitable for use on level or rolling land.



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For further details and
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ROBERT C. REEVES COMPANY

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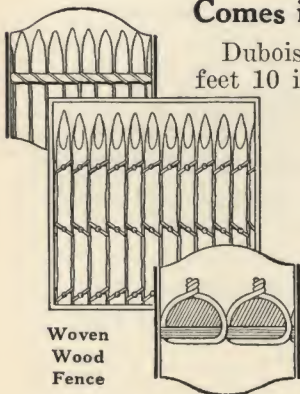
DUBOIS WOVEN WOOD FENCE (Continued)



THOUGH INSURING ABSOLUTE PRIVACY, DUBOIS IS ESSENTIALLY A FRIENDLY FENCE

Comes in Three Heights

Dubois comes in three heights: 3 feet 10 inches; 4 feet 11 inches and 6 feet 6 inches, with charming gates to match, either curved or straight across at the top. The use of the higher fence is recommended where it is desired to screen a laundry yard, or give privacy to a garden. For all ordinary fencing



purposes, the lower heights are entirely suitable and cost less than the higher fence.

Send for Illustrated Portfolio—Free

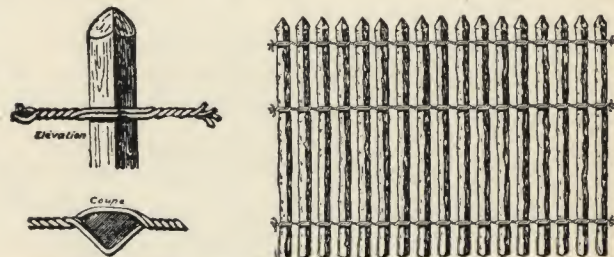
A portfolio of beautiful views of Dubois that contains valuable suggestions for city and suburban home builders (with Price List, Erection Data and Shipping Instructions), will gladly be sent free upon request. A more elaborate album specially prepared for Architects and Landscape Architects is also supplied without cost to our dealers. Our Service Department will also assist you in the solution of any fencing problem, either wood or wire.

Cleft Chestnut Fence

The Woven Wood Fence described above is made from small chestnut saplings bound closely together. For many purposes, fencing of a more open texture will answer. To meet the demand for a fence that is both artistic in character and very moderate in price, we offer Cleft Chestnut Fence, made by machinery from cleft chestnut saplings, spaced $\frac{3}{4}$ of an inch apart and firmly bound with three lines of 4-strand No. 13 galvanized wire. This style of fencing comes in 16-foot rolls and in three heights: 3 feet 10 inches; 4 feet 11 inches and 6 feet 6 inches.

At a little distance, Cleft Chestnut Fence closely resembles Dubois Woven Wood Fence, but owing to

the wider spacing of the uprights, it does not, of course, afford the same degree of privacy. There are many places, however, in which it can be used, and at a desirable saving in cost.



For further details and literature, write to:

ROBERT C. REEVES COMPANY

187 Water Street
New York, N. Y.

General Electric Wiring System

Consisting Entirely of Wiring Materials Manufactured by

GENERAL ELECTRIC COMPANY

Merchandise Department

BRIDGEPORT, CONN.

HOW TO PLAN WIRING

The G-E Wiring System has been developed in order that you may be assured of quality materials properly arranged and assembled without the necessity of writing detailed specifications covering a wide variety of products.

The G-E Wiring System is a system of housewiring embodying adequate outlets, conveniently controlled and using G-E materials throughout.

It Consists of the Following Elements:

- A G-E Safety Meter Service Switch.
- A G-E Safety Panelboard.
- A G-E Bell Ringer.
- G-E Code Wire.
- G-E Metal-covered Conductors (BX or Rigid Conduit).
- G-E Metal Boxes for Switches, Convenience Outlets and Lighting Outlets.
- G-E Tumbler Switches.
- G-E Convenience Outlets.

The following standards of adequacy are based on an analysis of a large number of adequately wired homes. If they seem to exceed present practice it should be remembered that—

- (1) Even those who have long been users of electricity are increasing their consumption at an average of nearly ten per cent each year.
- (2) A house is purchased for use over a long period of years.

Houses built five years ago are totally inadequate in the matter of wiring today.

- (3) A complete nationally advertised wiring installation adds much more to the *value* of a house than the cost of installation. Some six million people have shown the truth of this statement by their attendance at Electrical Homes in various parts of the country. To the best of our knowledge, every one of these homes has been sold at or before the conclusion of the showing for a price well in advance of the normal price plus the cost of the additional wiring which they featured.

The Standards of Adequacy Are:

- A Tumbler Switch accessible to each doorway for control of lights.
- A minimum of one convenience outlet for every 50 square feet of floor space.
- A minimum of one lighting outlet for every 50 square feet of floor space.

To plan the wiring it is simply necessary to indicate on the room plans of your house the necessary switches and outlets, following the above standards as a guide.

The following typical layouts will aid you in arrangement. The symbols used have been standardized and should be followed in order that the electrical contractor may easily interpret your instructions.



For further details and literature, write to:

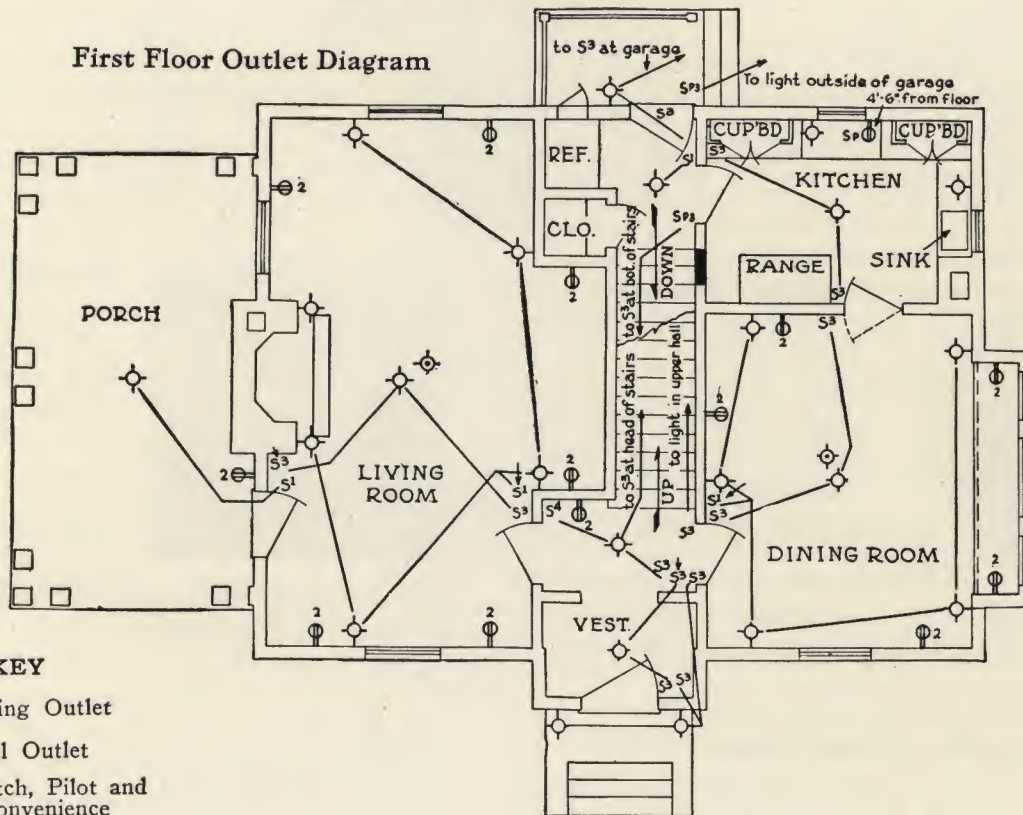
GENERAL ELECTRIC COMPANY

Merchandise Department
Bridgeport, Conn.

General Electric Wiring System

Consisting Entirely of Wiring Materials Manufactured by
GENERAL ELECTRIC COMPANY
 Merchandise Department
BRIDGEPORT, CONN.

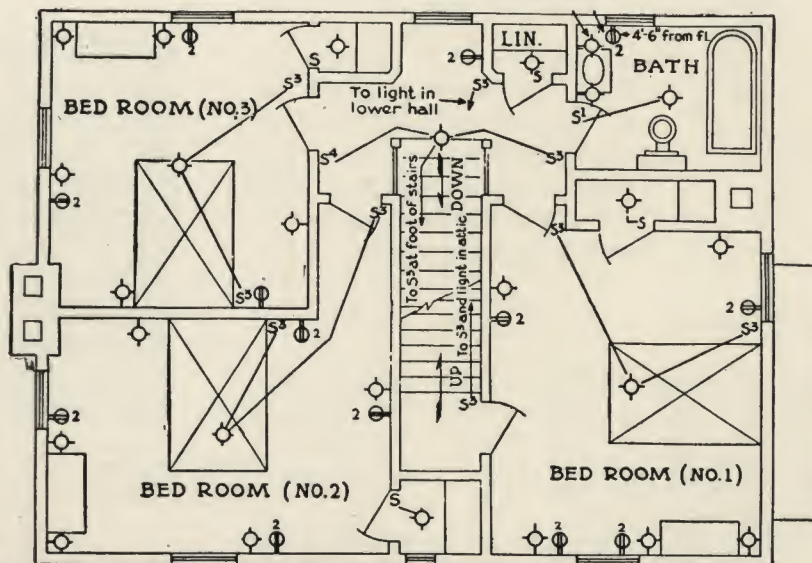
First Floor Outlet Diagram



KEY

- = Ceiling Outlet
- = Wall Outlet
- = Switch, Pilot and Convenience Outlet
- = Double Convenience Outlet
- = Floor Outlet
- = Panelboard
- S^1 = Single-pole Tumbler Switch
- S^3 = Three-way Tumbler Switch
- S^4 = Four-way Tumbler Switch
- S^{P3} = Three-way Tumbler Switch and Pilot
- S^P = Tumbler Switch and Pilot

Second Floor Outlet Diagram



Send for a copy of our helpful booklet, "The Home of a Hundred Comforts."



WIRING SYSTEM

—for lifetime service



For further details and literature, write to:

GENERAL ELECTRIC COMPANY

Merchandise Department
 Bridgeport, Conn.

American Electric Home Ventilator

Manufactured by the
THE AMERICAN BLOWER CORPORATION
 6000 Russell Street, Detroit, Michigan

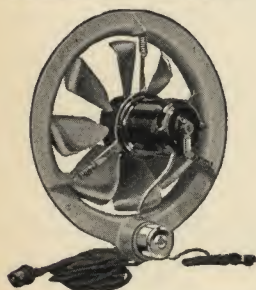
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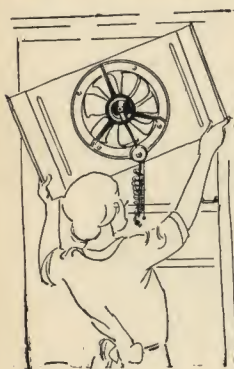
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 Wheeling, W. Va., 114 18th St.
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Exclusive Advantages of the American Electric Ventilator (Patented)



Fully enclosed radiation-cooled motor. No dust or grease carried by the air can possibly get into the motor windings to cause trouble. Motor operates at low speed insuring quietness and long service. A pull on the cord reverses motor whenever desired. Spring cushion suspension of motor and fan blades prevents vibration and further assures quiet operation.

The Adjustable Window Frame



for use with the American Electric Ventilator comes in two sizes which can be adjusted to fit practically any window. To install, metal strips are fastened at either side of the window frame with screws provided, and slots on each side of the adjustable frame fit over the screws. By having metal strips fastened on several windows, fan can be moved about as desired.

For the Kitchen



When installed in the Kitchen the American Electric Ventilator removes cooking fumes, smoke, soot and odors as fast as they originate and makes the kitchen a clean, healthful workshop—or by a quick pull of the cord the fan can be reversed and the fresh atmosphere of outdoors brought in.

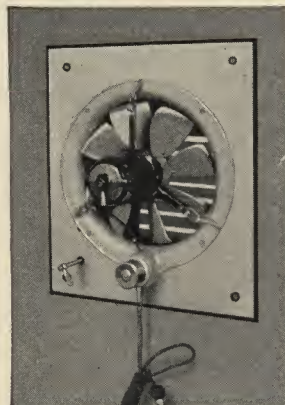


For the Living Room

In the living room men may smoke all they please and whole crowds meet without the close atmosphere that makes most home gatherings both uncomfortable and a menace to health.

The Patented Permanent Wall Fixture for Built-in Ventilation

This new development by American Blower adds the last touch of refinement to the modern home—built-in ventilation. It can be used in any room in the house—costing no more to install when building than an ordinary window, and is so equipped that when not in use adjustable louvers on the outside of the fan box can be closed to eliminate drafts.



Interior showing Fan in position on inside plate. (Note the neatness and compactness of the unit.)



Exterior showing outside mounting and adjustable louver which prevents air from getting in when fan is not in use.

For all the details of the American Electric Ventilator, ask your electrical dealer. If he cannot furnish them, write direct to the factory or any of our branches and sales offices listed above.



For further details and literature, write to:

THE AMERICAN BLOWER CORPORATION, Detroit, Mich.



The Sign of a
Better Job

PANELBOARDS FOR THE HOME

Manufactured by

Frank Adam

ELECTRIC COMPANY
ST. LOUIS



Look for the
Trade Mark

How the Fuse Safeguards You

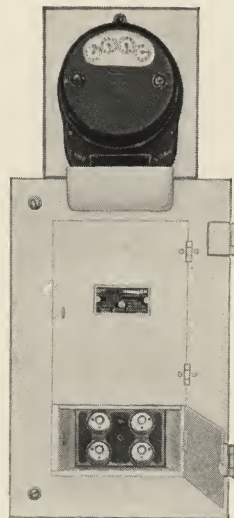
The fuse is the connecting link between two electrical circuits. For instance, there is a fuse that connects the main supply circuit with the wiring in your home. There are other fuses that connect the wiring in the individual rooms, hallways, etc., of your home with your main "house" circuit. When trouble appears in any one of these circuits the fuses automatically disconnect it from the other circuits. Thus the supply of electricity is cut off and costly damage is forestalled. This is what happens when a fuse is said to have burned (or "blown") out. In brief, the fuse safeguards your electrical wiring and protects it from mishaps at a very small cost to you.

The Panelboard

Of course, there must be a place in your home where fuses are kept in a handy location. This is the *Panelboard*. It is here all electrical circuits and wiring in the home center. It is your electrical control station—a very necessary and important item, and one not to be overlooked when you plan a building. Whether or not your Panelboard provides the utmost of safety and is reasonable in upkeep depends largely upon your choice. Read the center panel of this page carefully. It will help you to protect your home, and may save you much unnecessary expense.



Type "R" Panelboard
[For the Small Home]
This is the Ⓢ Safety Panelboard.
Type "R" showing the simple
method of replacing fuses.



Type NRSS

The Ⓢ Safety Type
"NRSS" Panelboard pro-
vides for complete meter
equipment with its other
features.

The Panelboard Is Your Safety Control

There would be little use for the Panelboard if it were not for its safety, also for the convenience it provides. However, do not be misled. Some "so-called" Panelboards are no more safe than exposed electrical wiring would be. These are, in most cases, units assembled where the building or home is constructed.

You are always safe in selecting an Ⓢ Panelboard because they are made under the most stringent supervision, in a factory equipped for making all parts safe. When an Ⓢ Panelboard is installed in your home you may promptly forget it. You will never have reason to approach it unless to replace worn out fuse plugs. You will then find this work can be done in a few seconds due to the practical manner in which an

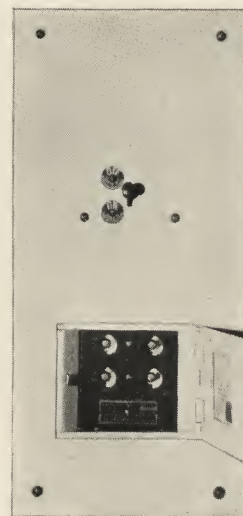
Ⓢ Panelboard is constructed.

There are many types of Ⓢ Panelboards. Each one is made to fulfill a specific duty and there is an Ⓢ Panelboard for *every* type of duty. This is well to know, for not all homes are the same size nor of the same construction. It is, therefore, unreasonable to expect one type of Panelboard to serve every home owner. *Your home needs one particular Panelboard.* This exact Panelboard

is to be found in the Ⓢ line. To choose it you need the Panelboard Book. Send for it—without obligations—study it and then talk matters over with your Architect or Electrical Contractor. You will be happier in the long run.



There is a Type, Size
and Price for Every
Home and Purse



Type FRS

The Ⓢ Safety Type FRS
is necessary where elec-
tric heaters and ranges
are used.

THINGS TO REMEMBER IN CHOOSING YOUR PANELBOARD

First of all—buy for permanency. It may cost a few dollars more to buy a standardized Panelboard, but when you buy one "made on the job" the first cost is not your last one. Choose a Panelboard with safety guaranteed by its manufacturer. Be sure it is of the approved *molded section safety type*. An Ⓢ Panelboard is a full protection to your electrical wiring, your home and your family. It is neat, compact and will always cost less besides giving unstinted service. Consult with your Architect or Electrical Contractor to decide upon the type your home needs—but, above all, insist upon the trade-mark.



ASK YOUR BUILDER

BUILDERS

Send for complete Panelboard estimates. They are sent promptly and without cost. Write Dept. M, the Frank Adam Electric Company, St. Louis.



For further details and
literature, write to:

FRANK ADAM ELECTRIC CO.

DEPT. M.

St. Louis,
Missouri

Glassware for Residential Lighting

Made by

MACBETH-EVANS GLASS CO.

(Eastern Division)

Charleroi, Pennsylvania

DISTRICT
OFFICES

New York—19 West 44th St.
Chicago—161 West Lake St.
San Francisco—74 New Montgomery St.

EXPORT
DIVISION

New York—25 Broadway

Products

Shades and globes of CREMAX, ANTIQUE, MONAX and ALBA Glass, plain and decorated, for use in every room of the home.



without sacrificing too great an amount of light. Cremax transmits a rich cream-colored quality of light, free from tones of green, evenly diffused, and of great warmth. Cremax furnishes a background which harmonizes delightfully with many different types of decoration for home lighting purposes.

"Antique" Glass

Frequently mistaken for crackled, Antique Glass differs entirely both in appearance and method of manufacture from the ordinary frosted glassware from which particles of surface glass have been removed by a coating of glue. Antique Glass procures its surface character during manufacture rather than from an applied process. It is furnished in crystal and golden, the latter being a natural-colored glass, not an applied tint. The popularity attained by Antique Glass within the past few years has encouraged its employment for many lanterns, shades and cylinders, a few of which are illustrated on these pages.

"Monax" Glass

A truly remarkable diffusing glass which transforms the uncomfortable brilliancy of high-powered lamps into usable and evenly diffused illumination with a minimum amount of light absorption. Monax globes and shades, plain, or decorated simply

Living Room



Here are shown a few of the many attractively decorated shades available for use with candle, bracket, or pendant luminaires in the living room. Furnished in "Cremax," "Monax" and "Antique" Glass. Every shade equipped with glass disc or fibre-insulated holder (see opposite page).

Reasons for Use

In selecting lighting equipment for the home, there are two prime factors which must be given careful consideration:

First—The increasing tendency toward the use of shaded light. It is accepted that all light sources should be shaded, and it is of paramount importance that the medium used shall also create artistic and decorative lighting effects. Because of its almost unlimited decorative possibilities, glassware is particularly adaptable for this purpose. In addition, lighting glassware possesses a utilitarian value: its colors are permanent, it is very easily cleaned, and it will not deteriorate from constant use.

Second—The introduction of new type inside-frosted Mazda lamps has rendered obsolete many existing types of residential lighting glassware. This has made necessary the preparation of new shapes by means of which these new lamps can be shaded both adequately and artistically.

"Cremax" Glass

So called because it is basically Monax Glass to which has been added ingredients that supply the rich cream tint of the finished product. Cremax—a natural-colored glass—is the latest development from the laboratories of Macbeth-Evans Glass Company. For several years, there has existed a demand for a tinted glass of this character. Many trials were made, but not until shortly before the appearance of this catalogue was a glass perfected which seemed in every way to meet the requirements of color

Dining Room



Two of the six available schemes for dining room illumination—Aurora Monax luminaires with candle shades in harmony. The construction of the Aurora permits a cone of direct light to be thrown upon the table below eye level but protects from glare the eyes of those seated about the table.

with a colored band, are especially effective for lighting the kitchen and bathroom where a good working light is to be desired rather than a decorative effect.

Luminaires

The term "Luminaire" is applied to those metal portions of lighting equipment commonly called "fixtures." Lighting equip-



For Further details and
Literature, Write to:

Macbeth-Evans Glass Co.

(EASTERN
DIVISION)

DEPARTMENT O
CHARLEROI, PENNA.

GLASSWARE FOR RESIDENTIAL LIGHTING (Continued)

ment is rapidly being considered less a fixture and more an article of furniture in the home. With the increased use of "Elexits" in wiring houses, the day is not far distant when Luminaires will be

Breakfast Nook—Sun Room—Halls, etc.



Many Macbeth-Evans globes and shades are adaptable to use in special surroundings, such as breakfast nook, sun room, sleeping porch, upper halls, etc. Above are illustrated three shapes which are proving popular for this purpose.

an integral and important part of home furnishings and will be transported as such when a tenant or home owner moves from one house to another. Therefore, it is important that Luminaires be chosen with a consideration of the glassware to be attached—harmony between the two is essential.

Lamps

Five new Mazda lamps now replace approximately forty-five shapes formerly considered necessary to satisfy general lighting requirements. The new lamps, frosted inside, may be secured in the following sizes: twenty-five, forty, fifty, sixty and one hundred-watts. Each Macbeth-Evans shade and globe is scientifically

Lower Hall—Porch



"Cremax" and "Antique" Lanterns for lower halls and porch create valuable "first impressions" of the home through distinctiveness in design and treatment—two examples above.

Bedrooms



Something dainty for the master room, children's room or guest room. Two designs above are selected from many available in center globes, side brackets and boudoir table shades.

designed to accommodate one of these sizes. Your dealer will recommend the proper size to use in order to obtain proper diffusion and proper effect.

Patent Holders

A patent holder is furnished with every Macbeth-Evans candle shade. This holder is made of glass and fits any standard candle-type luminaire, holding the shade in an unvarying vertical position.

For pendant-type luminaires, Macbeth-Evans shades come equipped with fibre-insulated holders which permit of easy attachment.

Kitchen—Bathroom



For the kitchen and bathroom—light! "Monax" Glass, plain or simply decorated, means adequate light minus disturbing glare.

Prices, Etc.

The shapes and decorations here illustrated constitute but a small portion of the complete Macbeth-Evans line. Any Macbeth-Evans dealer will gladly show you other styles to suit your individual purpose. Not only is there a shade or globe to harmonize with every scheme of decoration, but prices are so graded as to come within the means of every home owner. If your dealer does not carry Macbeth-Evans glassware in stock, please communicate with us direct.



For Further details and Literature, Write to:

Macbeth-Evans Glass Co.

(EASTERN
DIVISION)

DEPARTMENT O
CHARLEROI, PENNA.

LIGHTOLIER COMPANY

Designers, Manufacturers and Importers of Lighting Fixtures and Lamps

569 Broadway, New York City

Factory: 346 Claremont Ave., Jersey City

Lightoliers — the Beautiful Finishes that LAST



Artistry:

Lightoliers are made for every room in the house, for homes of all architectural styles, and for every purse.

Style Leadership:

Lightolier lines embrace the newest and most modern ideas in decorative illumination. There are 1022 Lightoliers from which to make your selection. Incidental inquiry will quickly show the high confidence maintained in Lightolier equipment by people of discriminating taste.

Assurance:

Lightoliers meet every requirement of most rigid inspection and are unqualifiedly guaranteed to be perfect in materials and workmanship.

Beautiful Finishing:

Beautiful Lightolier finishes are the result of years of experimental work and are guaranteed to last permanently.

Low Cost:

The large variety and wide assortment of Lightoliers assures a satisfactory choice for any budget—even the most modest.

Accessibility:

Lightoliers are on display in the showrooms of thousands of electrical contractors throughout the United States. Write for the name and address of the dealer nearest you.

The Vogue in Decorative

Lighting:

A handsome 32 page booklet that fully illustrates and describes the charm correct and decorative illumination lends to a home will be sent to you on request, without charge. Write for it.



LIGHTOLIERS—BEAUTIFUL FINISHES THAT LAST



For further details and literature, write to:

LIGHTOLIER COMPANY

569 Broadway
New York, N. Y.

LIGHTOLIER COMPANY

Designers, Manufacturers and Importers of Lighting Fixtures and Lamps

569 Broadway, New York City

Factory: 346 Claremont Ave., Jersey City



Fixtures for every kind,
style and type of home
and for every purse



LIGHTOLIERS—BEAUTIFUL FINISHES THAT LAST

For further details and
literature, write to:

LIGHTOLIER COMPANY

569 Broadway
New York, N. Y.

Duplex-a-lite Meets the Logical Require

Made by Duplex-a-lite Division of

THE source of artificial light in the home has undergone a tremendous evolution in a comparatively short period of time. The passing generation can recall the common use of candles, kerosene, gas, and the first incandescent lamps. And now the Mazda Research Laboratories have perfected the new, better and more brilliant Mazda C (gas-filled) lamp. Duplex-a-lite, almost alone, considers these changes in the light source and offers equipment to meet the logical requirements of home lighting today.



Glare Injures the Eyes

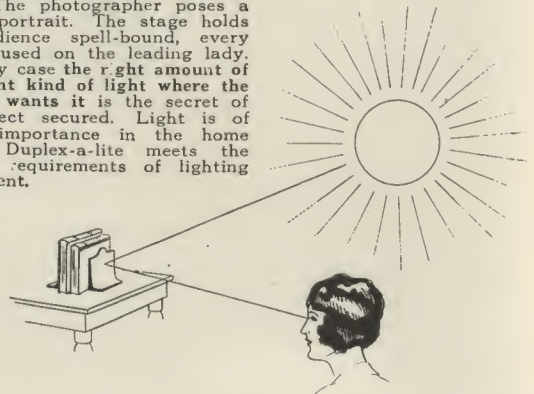
The first function of a lighting fixture should be to provide light enough for seeing. An abundance of light, properly diffused, is the simple but classic recipe. Duplex-a-lite does that by transforming raw light into pleasing, delightful and eye-conserving illumination, filling an entire room with the evenness and comfort of diffused sunlight.

A lighting fixture should also add beauty to the interior in which it is placed. Duplex-a-lite contributes this decorative note to a remarkable degree. The equipment itself is beautiful in design, contour and finish—and the resultant illumination is such that the beauty of the room itself is as delightful and as enjoyable by night as by day. There is no glare to blur detail and to destroy color values by casting undesirable shadows.



A Common Example of Reflected Glare

The artist paints a beautiful picture. The photographer poses a lovely portrait. The stage holds an audience spell-bound, every eye focused on the leading lady. In every case the right amount of the right kind of light where the worker wants it is the secret of the effect secured. Light is of equal importance in the home where Duplex-a-lite meets the logical requirements of lighting equipment.



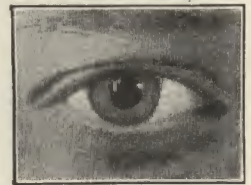
It is light on the object being looked at, and not light in the eyes, that enables you to see. Light in the eyes is a hindrance to seeing. With your own automobile headlights you can see the road clearly; with an automobile coming toward you vision is difficult—or impossible.

Home lighting equipment should provide the kind of lighting that contributes to the contentment of the family group, that protects precious eyes and enables them to function in a normal way. It should also be easy to clean and to equip with new lamp bulbs. The Duplex-a-lite meets all of these requirements.



Actual photograph showing the terrific strain the eye endures when exposed to the glare of an unshielded lamp. The pupil contracted to shut out the glare, yet straining to see. Raw light is destructive to human eyes.

Finally, Duplex-a-lite is more economical in operation, in that it uses one larger, more efficient size of Mazda lamp, rather than a group of smaller size lamps. The one 200-watt lamp and the current that it consumes cost about the same as do five 40-watt or three 60-watt lamps, while results in light output equal those received from eight 40-watt or five 60-watt lamps. This makes possible the continual use of an abundance of light on the most economical basis.



The eye under proper working conditions. Note relaxed appearance which permits of comfort and constant use without damage. Light from Duplex-a-lite equipment makes possible these proper working conditions.



For further details and literature, write to:

DUPLEX-A-LITE DIVISION OF THE MILLER CO.

MERIDEN CONNECTICUT

ments of Lighting Equipment in the Home

The Miller Company, Meriden, Conn.

No. D-201 is appropriate for informal living rooms. The ornamental cast grill overlays a deflector of an appropriate color in glazed porcelain enamel, presenting a rich, dignified appearance. Opalstone glass diffusing disc.

Finished in:

Colonial Gold with Dark Green Deflector as illustrated.

Sepia Ivory with Light Blue Deflector.

Verde Antique with Gold Deflector.

Bronze and Polychrome with Chinese Red Deflector.

Silver and Black with Dark Blue Deflector.

No. D-273 is particularly appropriate for Dining Rooms. In design it matches the D-71 series, but is made in but one size with an inconspicuous outlet in the bottom ornament for the easy attachment of toaster, percolator or grill. A special switch controls the light only—the outlet being always in service. It may be used with or without shades.

Finished in:

Silver and Black as illustrated or Antique Brass.

No. D-232 is a new Duplex-a-lite for use in bedrooms. The deflector is finished inside with polished white porcelain enamel, outside in a delicate pastel shade with white cameo decoration. Frostone discs supplied.

Variety of colors of metal work and deflector: Silver and Primrose as illustrated.

Silver and Blue.

Silver and Green.

Antique Brass and Corncolor.

No. D-262 Duplex-a-lite is in all respects identical to No. D-232 except that instead of the cord suspension a metal chain is supplied.

No. DM-140 Twin receptacle plate for use with No. D-273 Duplex-a-lite when a double outlet is desired.

Finished in:

Silver and Black as illustrated or Antique Brass

No. DM-21 Bracket to match the No. D-201 Duplex-a-lite. Projects 4 inches. Width, 6 3/4 inches. Finished in colors same as D-201.

No. DM-626, projects 4 3/4 inches. Also made in two lights No. DM-627. Finished in:

Antique Hammered Gold and Red as illustrated.

Antique Hammered Silver and Blue

No. DM-22 bracket to match the No. D-202 Duplex-a-lite. Projects, 4 inches. Width, 6 3/4 in.

Finished in:

Silver and Black as illustrated

Sepia Ivory

Colonial Gold

No. DM-726, projects 6 inches. Finished in Silver and Black as illustrated, Antique Brass or Old Ivory. Also made in two lights No. DM-727.

The D-81 series is a popular residential fixture. The design and finish is of Spanish influence. Inside reflecting surface is white porcelain enamel. Diffusing disc is of hand bent opalescent glass.

Finished in:

Antique Hammered Gold and Red as illustrated

Antique Hammered Silver and Blue.

The D-71 series is of conventional design and harmonizes with the average interior. Inside reflecting surface is white porcelain enamel. The Ivristone glass disc supplied is of a warm ivory tone.

Finished in:

Antique Brass as illustrated

Silver and Black

Old Ivory

No. D-202 is a more formal type of living room fixture. The Hexagonal cast grilled frame backed with silk surrounds the regular Duplex-a-lite deflector and supports the Opalstone disc, providing excellent illumination and delightful appearance.

Finished in:

Silver and Black with Dark Blue silk background as illustrated

Sepia Ivory with Rose silk background.

Colonial Gold with Green silk background.



For further details and literature, write to:

DUPLEX-A-LITE DIVISION OF THE MILLER CO.

MERIDEN CONNECTICUT

MOE-BRIDGES

ARTISTIC
LIGHTING EQUIPMENT

Backed by
Powerful National Advertising!

Eloquent charm through correct lighting

ADEQUATE illumination, unobtrusively yet artistically distributed through the medium of correct and attractive lighting equipment, eloquently interprets your individual taste and unites the furnishings of every room in an harmonious and charming arrangement.

Glance from this advertisement to your ceiling and wall fixtures and to your floor and table lamps.

Are they distinctive in design and to the style period they represent? In keeping with you?

For elaborate mansion or home Moe-Bridges lighting equipment combines the best of style with the best of strength which assure your appreciation of service.

"When buying the title of a new or recently published book of literature, you will find it well within the means of almost any home owner!"

Working for you!

Glowing examples of good taste

WHAT a wonderful medium of expression is the art of lighting!

How subtly yet eloquently it interprets the thoughtfulness and innate good taste that guided your selection of appointments for your home.

How necessary it is that your lighting equipment follow the spirit of your home's architectural design — and lend its own individuality and beauty to the charm of the ensemble.

If your present home — though young in years — is old in its lack of appropriate lighting equipment — allow a Moe-Bridge dealer to explain to you the delightful decorative possibilities of Moe-Bridges fixtures.

For every room in your home Moe-Bridges creations provide the distinctive beauty usually found only in expensive, custom-built equipment — yet their cost is well within the means of almost any home owner!

If you are interested in the opportunity offered you through the medium of authentically correct lighting equipment, you will find

THE LADIES HOME JOURNAL

Good Housekeeping

BETTER HOMES and GARDENS

Advertisements like these appear every month of the year in the favorite magazines of five million families—many of them your prospects.

Such advertising has established not only the decorative value of artistically correct lighting equipment in the home, but has also created an immeasurable degree of consumer confidence in the name Moe-Bridges.

That is why an ever increasing number of Builders now install these finer fixtures in the homes they build.

They find that Moe-Bridges fixtures not only add to the value of the home, but also exert a tremendous sales influence upon prospective home buyers.

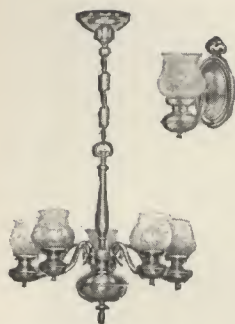


For further details and literature, write to:

THE MOE-BRIDGES CO., Milwaukee, Wisconsin

MOE-BRIDGES

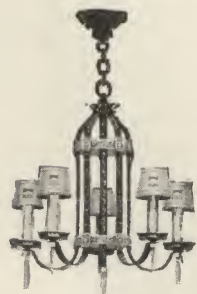
ARTISTIC
LIGHTING EQUIPMENT



Colonial Design 18-S-5 and 18-S-1 Centerpiece and Wall Bracket. Finished in Colonial Brass. Early American Oil Lamp Pattern. Astral Cut Glass Shades. 18-S-1 with canopy switch.



Tudor Design Wall Bracket 101-K-2. Cracked Jade Finish with distinctive Parchment Shade. Equipped with canopy switch.



Tudor Design Center Fixture 100-K-5. Beautiful Cracked Jade Finish. 42-inch drop.

Products:

As one of the largest producers of lighting equipment in the world, this company manufactures equipment for every residential and commercial lighting purpose.

The Moe-Bridges line contains more than one hundred numbers, providing a variety of designs and finishes unexcelled in the industry.

It is a line particularly attractive and valuable to builders and realtors because it offers nationally advertised, authentically correct fixtures for every type of home at about the same cost as that of ordinary fixtures.

Construction:

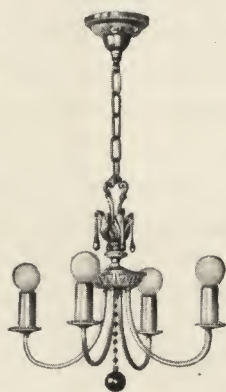
Illustrated here are representative Moe-Bridges designs, all embodying the artistic beauty and individuality usually found only in custom-built fixtures.

An Advisory Board, consisting of an architect, artist and interior decorator, passes upon the merits of every Moe-Bridges design before it is advertised or sold. This fact, coupled with the high quality materials and precision workmanship which characterize all Moe-Bridges products, insures lasting satisfaction and appreciation on the part of the home buyer. Each Moe-Bridges fixture is backed by an unconditional guarantee.

Sold by Selected Dealers:

Moe-Bridges lighting equipment is sold only by carefully selected, long experienced contractor-dealers. Through your local Moe-Bridges dealer you are assured of prompt, highly capable co-operation and service in every matter pertaining to wiring or lighting.

Our latest catalog, illustrating in full color the complete Moe-Bridges line, will be sent free upon request.



The Famous 90-Line

90-K-4, 4 Light—90-K-5, 5 Light.

Canopy 5 inches. Spread 17 inches. Length over all, 42 inches. Standard Finishes.

The new 90-Line is the ideal line for the Builder where price of the fixtures is important and yet where an appeal must be made to prospective buyers of discriminating taste.



Design 440 Bedroom Center Fixture. Rich Antique Ivory Finish with distinctive, oval Chintz Shade. Also may be fitted with Parchment Shade.



Design B-27-S-1201-A Table Lamp. Hammered Brass Finish. Oval Parchment Shade.



Design 40-K-5 Wrought Iron. Center Fixture. Enameled Polychrome Finish.



For further details and literature, write to:

THE MOE-BRIDGES CO., Milwaukee, Wisconsin

National Mazda Lamps



A GENERAL ELECTRIC PRODUCT
NELA PARK

CLEVELAND



WHEN DAY IS DONE

IT'S only when day is done and shadows fall that home really comes into its own.

It will be after sundown that the family will gather most often to enjoy the home you are planning and in the evening you will receive and entertain most welcome guests.

As you plan and when you build remember that good lighting is an essential to the comfort and beauty of homelife. Good lighting too adds much to the value of your home—yet costs but little.

Wire your house with a generous supply of outlets—that will permit you to spot your lights to suit your moods and

move your lamps when you rearrange your furniture.

Select your fixtures with care, not just from the standpoint of appearance but for the kind of light they give. Insist on a shade for every light bulb, for *bare lamps are always glare lamps and are bad for your eyes.*

And place an inside-frosted National Mazda lamp in every socket. They give you the best of light for the least money. Insist on the lamps in the blue cartons.

We will be glad to mail you free, our "Home Lighting Recipes" which tell of popular types of lighting fixtures and show the proper sizes of Mazda lamps to use with each.



For further details and literature, write to:

NATIONAL LAMP WORKS

Nela Park
Cleveland, Ohio

HOME BUILDERS CATALOG

PARAMOUNT Electric Fixtures



1005



1313



1719



A-3



35



250-G



246



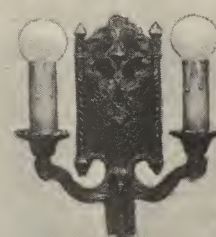
243



1005



1312



1619



626



16



G-301-W

BEAUTY, appropriateness and economy are assured you when you select our fixtures for your home.

Builders, contractors and home owners are assured that Paramount Fixtures are incomparable... quality and price considered, and every fixture is guaranteed to give you satisfaction.

If you do not see what you want on this page, drop us a postal card and ask us to send you our

FREE CATALOG

Thousands of electrical fixtures for every purpose

PARAMOUNT ELECTRIC COMPANY

930 ARCH STREET

PHILADELPHIA, PA.

Ideal Lighting For Every Home

P & S ALABAX

Lighting Units



AL-1475

ALABAX Ceiling Unit. Wherever good general lighting is desired.



AL-2846

ALABAX Wall Bracket with convenience outlet. Ideal for kitchen, bedroom, bathroom.



AL-990

ALABAX Wall Receptacle with convenience outlet. For clear mirror light.

P & S Alabax ceiling receptacles and side wall brackets are the finest product of their kind on the market. They are made of the highest grade electrical porcelain by a manufacturer with almost 40 years' experience in making quality products.

In new homes these fixtures complete the attractiveness of the modern kitchen, bathroom or bedroom. To all old homes **P & S Alabax** fixtures bring an almost unbelievable improvement.

P & S Alabax lighting units have a beautiful "fired in" lustre which will not stain, rust, chip or peel and is not affected by heat or moisture. They are easily kept clean with a damp cloth.

You can secure these fixtures in white or a variety of all-over

colors, or in striped effects; all of these decorations are permanent and are put on by the same methods as used by fine china manufacturers.

P & S Alabax lighting fixtures are furnished ready for immediate and safe installation. Glassware is not furnished—this permits the purchaser to make a selection to suit the individual taste.

P & S Alabax gives permanent satisfaction wherever lighting units of beauty and durability are desired.

Write us for complete information and **P & S Alabax** folder which shows various colors in which Alabax fixtures are furnished. Please give name and address of your electrical dealer or contractor.

PASS & SEYMOUR, Inc.

Solvay Station, Syracuse, N. Y.

NEW YORK
71-73 Murray Street

CHICAGO
730-32 W. Monroe Street

WEST COAST Sales Representatives
C. R. Bach Co.
252 Fifth Street, San Francisco, Calif.

NEW ENGLAND Sales Representative
Alva D. Stein
156 Purchase Street, Boston, Mass.

"THOSE WHO KNOW THE FACTS, INSIST ON ALABAX"



For further details and literature, write to:

PASS & SEYMOUR, Inc.

SOLVAY STATION
SYRACUSE, N. Y.

PORCELAIN WALL BRACKETS

Made by
McGILL MANUFACTURING CO.
 Valparaiso, Ind.

Products:

Levolier White Glazed Porcelain Sanitary Wall Brackets, Pull Sockets, Candle Pull Sockets, Conduit Box and Fixture Switches, Pull Switches, Link Switch, Twilight Dimming Switch, and Hickeys.

Uses:

The Levolver Wall Bracket offers a very marked improvement over other types now on the market. They can be used in Bathrooms—on each side of mirror—eliminating extra circuit to baseboard receptacle; Kitchens—directly over sink or either side of window over sink, auxiliary to regular ceiling kitchen lighting unit; Pantries—convenient place on wall to light cupboard; Laundries—directly over tubs or to one side. Convenient outlet handy for washing machine connection without extra outlet box.

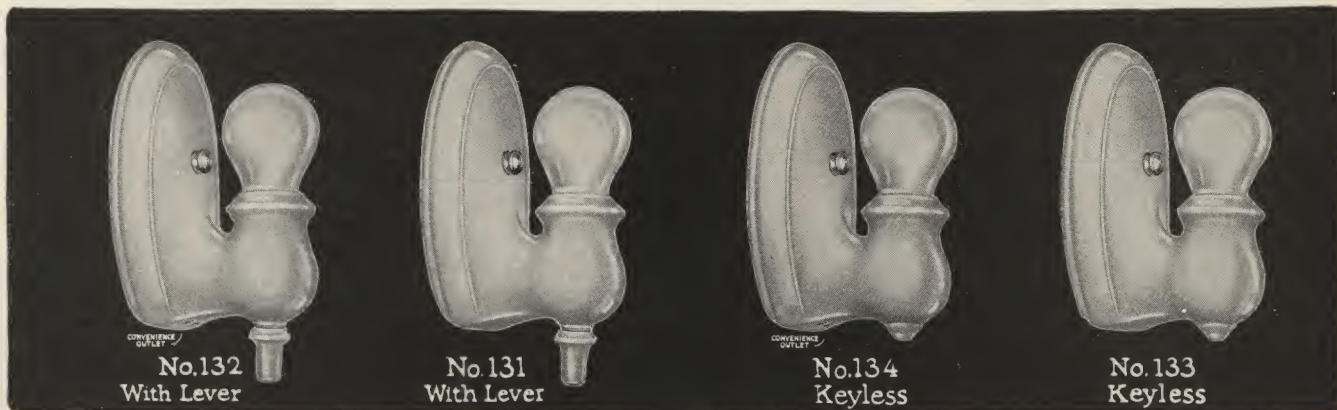
Levolver
REG. U.S. PAT. OFF.

Economy—Utility:

Levolver Wall Brackets are a real economy. On new work they save the price of an extra outlet—on old work they prevent tearing out wall and baseboard for an extra electrical outlet. The handy convenience outlet is of great utility in bathrooms for heating water or curling iron or for electric room heater; in kitchens for electric coffee grinder and mixer; in laundries for connecting electrical mangle or washing machine. There are numerous other uses around the home for just such convenience outlets.

Fine Appearance:

Pleasantly harmonious in every way, they add a note of attractiveness to any room. The pure white glazed porcelain finish retains its bright new ap-



Types—Sizes:

Made in four popular styles—with lever control and plain canopy; lever control with convenience outlet in canopy; keyless with plain canopy and keyless with convenience outlet in canopy. Height of canopy, 7 inches: Width of canopy 4 inches. Projects $4\frac{1}{8}$ inches from wall when installed.

Design—Construction:

Made of pure white glazed porcelain that never chips nor cracks. The canopy is connected with the glazed porcelain-encased standard base socket. Lever control at bottom of the socket is new and most convenient. Heavily insulated for safety, against shock. A slight push with the finger will turn the switch on or off. The keyless socket has no lever, but is furnished with a button that adds to the symmetry of the wall bracket. The socket and convenience outlet are easily wired and attached to wall. Made to fit any standard outlet box. No soldering or taping necessary to make connections.

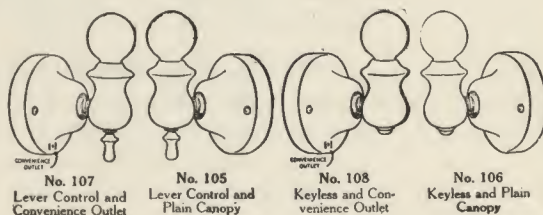
pearance even after years of constant use. When soiled they can be easily cleaned with a damp cloth. Surely they are a great innovation over the old styles made of metal with a white enamel sprayed finish that quickly turned yellow and harbored dust that could neither be dusted nor washed off.

Guarantee:

Levolver Porcelain Brackets will neither chip nor crack nor discolor. Every part is substantially made to give life-long service. Heavy rugged parts make the lever switch positive in action, free from the possibility of short-circuiting and causing shock when turning on or off.

Literature:

Send for further particulars about the Levolver White Glazed Porcelain Wall Bracket. An illustrated bulletin is yours for the asking.



For further details and literature, write to:

McGILL MANUFACTURING CO.

VALPARAISO,
 IND.

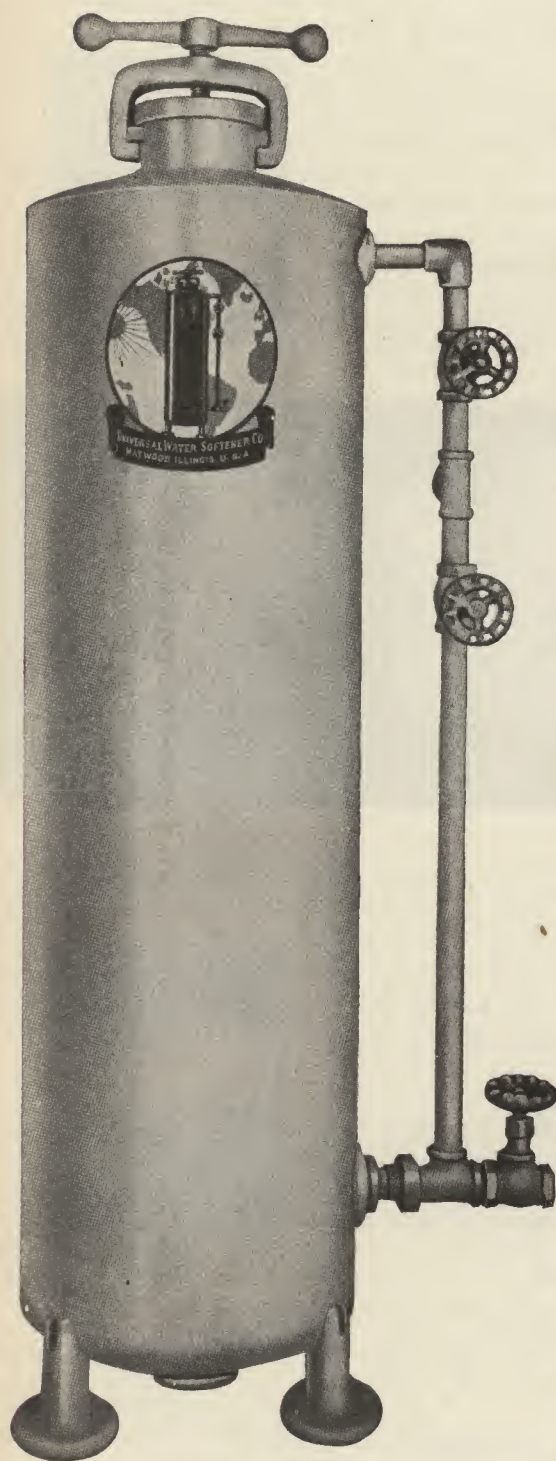
UNIVERSAL WATER SOFTENER COMPANY

General Sales Office: 112 South Fifth Avenue

Maywood, Illinois (Suburb of Chicago)

Safe, Pure, Super-Soft Water, Chemically Free. No Acids, No Causticity, No Turbidity, No Ferric Iron

No Increased Alkalinity in Order to Soften the Water



ENJOY THE WATER YOU ARE NOW USING. The Universal Water Softener is entirely automatic in its softening action. YOUR PRESENT hard city or well supply goes through the Universal Water Softener, comes out safe, pure, super-soft drinking water at every faucet in the house, cold and hot.

PURE SOFT WATER is more healthful than hard water.

VERSALITE MINERAL (exclusive with Universal), is a hard, flint-like mineral of great softening capacity, practically everlasting and is the only mineral of its kind in existence that **does not add caustic soda, ferric iron, turbidity**, or increase the **alkalinity** in the water in order to soften same. Thereby, giving pure softened drinking water at every faucet in the house, which is only possible with a Universal Water Softener.

THE UNIVERSAL TANK—Simple in construction, no moving parts to get out of order, is built of 3/16 copper-bearing steel, BAKED PORCELAIN LINED, finished outside in durable Duco. The PORCELAIN LINING prevents rust and salt brine contamination, also assures a lifetime installation.

INSTALLATION—Each softener comes completely assembled—factory filled, tested and guaranteed. To serve the whole house the Universal is installed immediately after the water meter or feed line—just two simple connections.

THE UNIVERSAL WATER SOFTENER increases the comfort and conveniences of your entire family, lessening the housework and in every way bettering conditions. It will also actually add several times its cost to the market value of your property. It prevents scale and encrustations in hot water coils, furnace coils, tanks and heating plants, thereby saving fuel and equipment. VERSALITE softened water permits a perfect bath, eliminates high water marks on bath tubs and general plumbing fixtures throughout the house. VERSALITE softened water prevents greasy sinks and slow drains and traps. But what is more important and valuable, it pays big health and comfort dividends every day.

UNIVERSAL SOFTENER is the last word in refined water softening equipment, a lifetime installation with filtered and pure softened water for bathing, laundry and general household duties, as well as ideal and healthful drinking water—more than 10,000 satisfied users.



For further details and literature, write to:

UNIVERSAL WATER SOFTENER CO.

112 S. Fifth Ave., Maywood, Ill.
(Suburb of Chicago)

Manufactured by the **UNIVERSAL WATER SOFTENER COMPANY**

THE "STERLING" WATER SOFTENER

Will Modernize Your Water System

A Soundly Built Quality
Water Softener
At a Remarkable Price

Size
SS

\$85 Complete

The—"Sterling"—is the Water Softener you have been waiting for. It is brought out to supply the demand for a reliable, inexpensive Softener for the moderate priced home. It is the best built Softener in the popular priced field, as well as being the very lowest priced quality water softener on the market.

The "Sterling" Water Softener

Its cost is the lowest on the market, and it is an honest value Product, built to comply with Universal's idea of dependable simplicity.

No moving parts to wear out, no brine storage tanks, no leaky, sloppy salt pots.

Built of full weight $\frac{3}{16}$ quality tank steel, filled with Decalso Mineral—one of the oldest, most dependable, large capacity, rapid rate, softening minerals.

Finished in durable Duco enamel, carefully inspected and strongly crated—fully guaranteed.

Operates on upward flow which prevents clogging, caking or channeling of the softening mineral. Insures the quickest and most thorough regeneration. It is very low in salt consumption for regenerating.

It delivers water that can be used for drinking and cooking.

Easily Installed

Each Softener comes correctly tagged—Can be quickly set up, as follows:

- 1—Place Softener in a level vertical position convenient to pipe connections and drain.
- 2—Make pipe connections to softener, as per illustration at left.
- 3—Close "DRAIN VALVE." Close all soft water faucets. Partially open "HARD WATER VALVE"—allowing softener to fill slowly. Then open "HARD WATER INLET VALVE" wide.

NOTE: Control pressure entering softener to prevent loss of mineral.

Easy to Select Size Needed

No home using hard water is complete without a modern water softener. The "Sterling" comes in three sizes,—small, medium and large as follows:

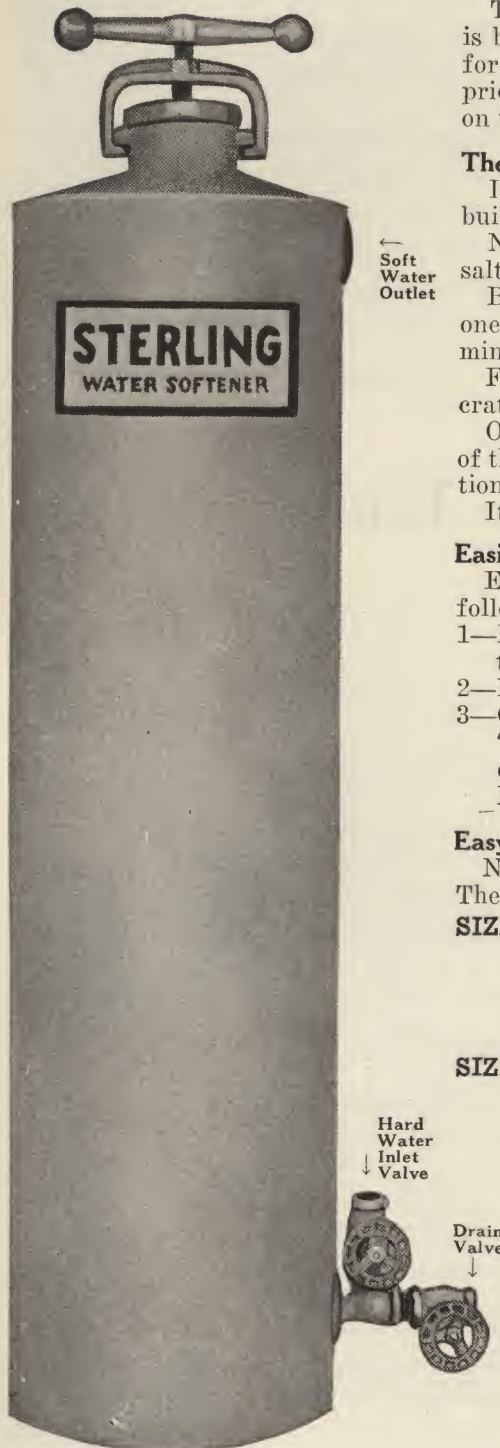
SIZE SS—Suitable for small families where the hard water does not exceed 20 grains. Has 10,000 grain softening capacity—Requires seven pounds of salt per regeneration. Has $\frac{3}{4}$ " piping. Floor space 12"x20", 50" high. Shipping weight 260 pounds. Price, f.o.b. Maywood.....\$85

SIZE SM—Gives good service in families of three or four people where the hard water does not exceed 30 grains. Softener capacity 20,000 grains. Requires 14 pounds of salt per regeneration. $\frac{3}{4}$ " piping. Floor space 15"x22", 51" high. Shipping weight 300 pounds. Price, f.o.b. Maywood.....\$110

SIZE SL—For larger families where the hard water does not exceed 50 grains. Softening capacity 30,000 grains. Requires 21 pounds of salt per regeneration. $\frac{3}{4}$ " piping. Floor space 18"x26", 58" high. Shipping weight 400 pounds. Price, f.o.b. Maywood.....\$150

Each "STERLING" SOFTENER COMES COMPLETE—ready to use—and guaranteed to operate satisfactorily in every home where the hard water is suitable for softening and when softener is installed and operated in accordance with the simple instructions. Further guaranteed free from defects in workmanship and material for one year.

Built and Backed by



For further details and
literature, write to:

UNIVERSAL WATER SOFTENER CO.

112 S. Fifth Ave., Maywood, Ill.
(Suburb of Chicago)

The San-Equip Septic Tank

Made by

CHEMICAL TOILET CORPORATION

953 E. Brighton at Glen Ave.

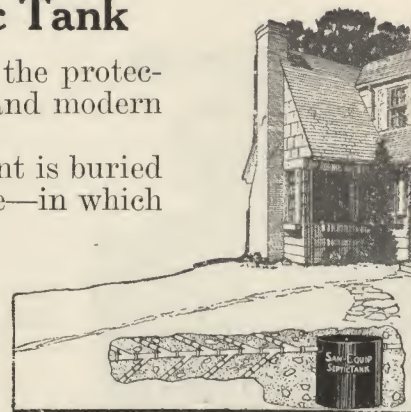
Syracuse, N. Y.

You Need a Durable and Dependable Septic Tank

If you live beyond city sewer lines, you owe your family the protection against typhoid and other infections afforded by a safe and modern system of sewage disposal.

In fact, the most important part of all your home equipment is buried in the ground—the septic tank. If it is made of concrete or tile—in which you wouldn't even store gasoline—there's always danger of frost cracks and the resulting leakage that presents a constant source of danger.

However, there is one type of tank that is leak-proof, crack-proof and rust-proof. The material used in its construction is copperoid iron—12 and 14 gauge—rust-proofed with mineral asphalt enamel. It is the



San-Equip Septic Tank

San-Equips are constructed from the U. S. Public Health Service Designs. They are fully guaranteed and always dependable. Not one failure among the thousands in use. These Septics are unaffected by moisture, acids, or soil, assuring long life and efficient service. Requiring no sewer connections, they are easily installed. No cost to operate.

San-Equip raises property values many times its cost. And your home will be more attractive to family and guests with the comforts and conveniences of a modern toilet and bath.

Write for Free Plan Sheets

You will want to read the San-Equip literature.

Dealers and Builders

everywhere are recommending and using the San-Equip heavy gauge copperoid iron tanks. First, because of superior reliability and of rendering honest, efficient service to their customers.

Secondly, because of the convenience of having the complete job handled together in one contract—saving time on supervision—getting the detail off their hands.

Most builders, when it comes to septic tanks specify the standard San-Equip.

Our free advisory service will assist you with special problems.

This is our only business—the largest factory and sales organization in the country specializing exclusively in the manufacture, sale and service of sewage disposal equipment for unsewered districts.

We shall be pleased to serve you.

Order From Your Plumber

He is a trained specialist who will secure your San-Equip Septic along with your other plumbing fixtures. His jobber or one of our nearby warehouses will supply him promptly.

Don't accept a makeshift or inferior plan of sewage disposal. It never pays. Specify a San-Equip Septic Tank.

Rating Number of People

Dimensions—Inches

| No. | Net Gallons | Home | School | Factory | Diameter | Depth | Shipping Weight, Lbs. | Price |
|-----|-------------|------|--------|---------|----------|-----------|-----------------------|---------|
| 402 | 200 | 6 | 12 | 10 | 38 | 48 | 295 | \$40.00 |
| 403 | 300 | 10 | 20 | 15 | 47 | 48 | 325 | 52.00 |
| 405 | 500 | 20 | 35 | 30 | 52 | Length 60 | 420 | 90.00 |
| 410 | 1000 | 50 | 65 | 60 | 60 | Length 96 | 950 | 180.00 |

SEE A SAN-EQUIP BEFORE YOU BUY. We'll send your dealer a San-Equip for free inspection. If it isn't just what you want, he will send it back at our expense. This offer has stood for 6 years with no returns—always more San-Equips follow the first one to any community.

Where there is neither water nor sewer connections, ask for printed matter on the San-Equip improved self-drain toilet. Before you order any system write for our free plan sheets and booklet, "How to be Safe without Sewers."



For further details and literature, write to:

CHEMICAL TOILET CORPORATION

952-962 E. Brighton at Glen Ave.
Syracuse, N. Y.

KAUSTINE COMPANY, Inc.

Manufacturers and Sanitation Engineers

Offices and Factory, Perry, N. Y.

Kaustine

Manufacturers of

Kaustine Armco Ingot Iron Septic Tanks Kaustine Super-Septic Tanks Kaustine Chemical System Toilets
Provide your home with the best. The Kaustine method of sewage disposal insures this.

Kaustine Armco Ingot Iron Septic Tanks

Kaustine Armco Ingot Iron Septic Tanks are constructed of Armco Ingot Iron throughout and coated with Hermastic Enamel. This furnishes you with a tank made of special materials at the same price ordinary tanks are sold. The tank is correct in design and made under expert supervision by experienced workmen. On account of the rust-resisting qualities of Armco Ingot Iron the life of the tank is indefinite.

The coating is unaffected by the gases arising from the decomposition of the sewage and, hence, you are assured of a tank that is both non-corrosive and unaffected by frost action. In order to assist you in the selection of the proper type of installation, the Kaustine Company, Inc., maintain an Engineering Department which will furnish you advice and plans free of charge for your installation. Write for specifications and plans.

SPECIFICATIONS

VERTICAL TANKS

| Catalog No. | Net Gallons | Dimensions Diameter—Depth | No. of Persons Accommodated | | | | Weight Lbs. |
|-------------|-------------|------------------------------|-----------------------------|-------|---------|--------|----------------|
| | | | Home | Hotel | Factory | School | |
| 62 | 200 | 38" x 48" | 7 | 8 | 12 | 15 | 260 |
| 63 | 320 | 48" x 48" | 10 | 12 | 20 | 25 | 330 |

HORIZONTAL TANKS

| Catalog No. | Net Gallons | Dimensions Diameter—Length | No. of Persons Accommodated | | | | Weight Lbs. |
|-------------|-------------|-------------------------------|-----------------------------|-------|---------|--------|----------------|
| | | | Home | Hotel | Factory | School | |
| 82 | 200 | 38" x 48" | 7 | 8 | 12 | 15 | 260 |
| 85 | 515 | 48" x 72" | — | 25 | 35 | 40 | 415 |
| 87 | 750 | 48" x 100" | — | 37 | 50 | 60 | 560 |
| 813 | 1300 | 64" x 100" | — | 65 | 85 | 110 | 1070 |
| 816 | 1600 | 64" x 125" | — | 80 | 110 | 135 | 1320 |
| 820 | 2000 | 65" x 144" | — | 100 | 135 | 165 | 2100 |
| 825 | 2500 | 65" x 180" | — | 125 | 170 | 210 | 2500 |
| 829 | 2900 | 65" x 216" | — | 145 | 190 | 240 | 2900 |
| 834 | 3400 | 65" x 252" | — | 165 | 230 | 280 | 3300 |
| 839 | 3900 | 65" x 288" | — | 195 | 260 | 325 | 3700 |
| 843 | 4300 | 65" x 324" | — | 220 | 280 | 360 | 4100 |
| 847 | 4700 | 65" x 360" | — | 240 | 320 | 390 | 4500 |
| 851 | 5100 | 65" x 396" | — | 260 | 340 | 425 | 4900 |



Kaustine Super-Septic Tanks

The Super-Septic Tank is an improved type of tank which, on account of its peculiar internal baffling arrangement, is patented, and hence this design is found only in tanks of this type. The patented internal baffle provides for the flow of sewage around the tank and thus prevents the short-circuiting of

sewage through it.

This results in a clearer effluent. This tank also is constructed of heavy gauge Armco Ingot Iron and covered inside and outside with Hermastic Enamel. Distinctive in their design, Super-Septic Tanks are the last word in sewage treatment for residences where a system of public sewers is not available.

SPECIFICATIONS

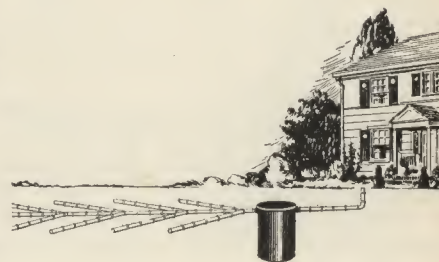
| Cat. No. | Dimensions Diameter, Depth | Total Capacity Gals. | Working Capacity Gals. | No. of Persons Accommodated | | | |
|----------|-------------------------------|-------------------------|---------------------------|-----------------------------|-------|---------|--------|
| | | | | Home | Hotel | Factory | School |
| 112 | 38" x 50" | 245 | 200 | 7 | 8 | 10 | 12 |
| 113 | 48" x 50" | 390 | 320 | 10 | 12 | 15 | 20 |
| 114 | 55" x 60" | 615 | 535 | 17 | 20 | 25 | 32 |
| 115 | 65" x 60" | 860 | 735 | 25 | 30 | 35 | 50 |
| 116 | 75" x 60" | 1150 | 1000 | 35 | 50 | 65 | 80 |
| 117 | 92" x 60" | 1700 | 1500 | 50 | 75 | 100 | 125 |

Order from your plumber a supply of KAUSTINE tanks if you wish to secure the finest materials and latest design in sewage disposal equipment at the lowest cost.



Kaustine System Toilets

If a water supply under pressure is not available and the conveniences of an indoor toilet are desired, the Kaustine System Toilet is recommended. Easy to install, efficient to operate, economical in upkeep and sanitary in every detail it furnishes a means of sewage disposal within the reach of every home owner.



For further details and literature, write to:

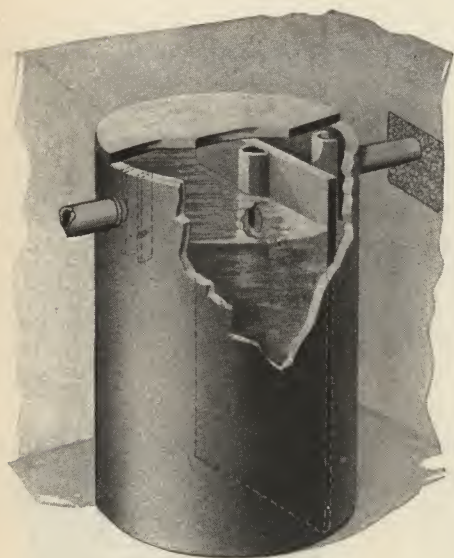
KAUSTINE COMPANY, Inc., Perry, N. Y.

SEP-TANK SEWAGE DISPOSAL SYSTEMS

Made by

THE STROUDSBURG SEPTIC-TANK CO.

312 Main Street, Stroudsburg, Pa.



IMPORTANT! TO HOME BUILDERS

When you start to make your plans for a home, or any type of building which is to be built in an **UNSEWERED LOCATION**, and you desire to use modern Sewage Disposal Equipment, please consult us in regard to recommendation for the proper installation of the Septic-Tank Equipment. Very often plans and specifications are made and building started, and then it is found almost impossible to properly install the Sewage Disposal Equipment.

In other words, Sewage Disposal should be a **PRIMARY CONSIDERATION** and not a secondary one.

You can save labor, time and money by consulting us when you are planning your project. Detailed plans and specifications furnished free to any prospective home builder.

SEP-TANK SYSTEMS

Are Safe and Satisfactory. Over 70,000 Septic Tanks of this design now in use.

The "Sep-Tank" Systems, manufactured by this company and employing the L. R. S. System, are constructed of concrete, thoroughly reinforced with steel fabric to prevent cracking, and water-proofed to prevent leakage and absorption, thus creating a permanent water-proof container. The bottoms are constructed in one piece with the tanks, making leakage impossible. The corrosive action of the acids in the sewage will not affect these tanks as it does metal systems or other concrete tanks with metal parts. They have sufficient depth to insure complete digestion of the sewage and sufficient area in the tanks for a proper bacterial mat.

The flow of sewage through the tanks is retarded by the baffles, preventing a disturbance in the liquefying chamber where the anaerobic, or friendly, bacteria work.

Our methods comply in every respect with the requirements of the L. R. S. System, and have been commended by various State Boards of Health and other eminent authorities on sanitation. It has met with unqualified success and endorsement.

TANKS AND SIZES

Write us
for price
on larger
Systems
than shown
in this
schedule.

| No. | Gallons Capacity | Outside Diameter | Outside Height | Weight | Users | Price |
|-----|------------------|------------------|----------------|--------|---------|---------|
| 19 | 200 | 40" | 42" | 1450 | 5 | \$35.00 |
| 21 | 250 | 42" | 56" | 1600 | 6 to 8 | 55.00 |
| 22 | 300 | 48" | 56" | 1750 | 9 to 11 | 72.00 |

GREASE TRAPS

On all the larger type of residences the use of a Grease Trap in connection with the septic tank system is absolutely essential. The kitchen, pantry and laundry wastes should discharge directly into the Grease Trap before they finally discharge into the septic tank system. Grease not only clogs the sewer lines, but also will seriously hinder the operation of the septic tank system as it collects very rapidly and is not subject to liquification by the bacterial action in the septic tank. We manufacture several different sizes of reinforced concrete Grease Traps, as shown in table below.

GREASE TRAPS AND SIZES

| No. | Gallons Capacity | Outside Diam. | Outside Height | Weight | Price |
|-----|------------------|---------------|----------------|--------|---------|
| 0 | 50 | 28" | 40" | 600 | \$18.00 |
| 1 | 75 | 32" | 44" | 750 | 28.00 |
| 2 | 175 | 36" | 56" | 1300 | 40.00 |
| 3 | 250 | 42" | 56" | 1450 | 50.00 |
| 4 | 300 | 48" | 56" | 1600 | 61.00 |



For further details and literature, write to:

THE STROUDSBURG SEPTIC-TANK CO.

312 Main Street
Stroudsburg, Pa.

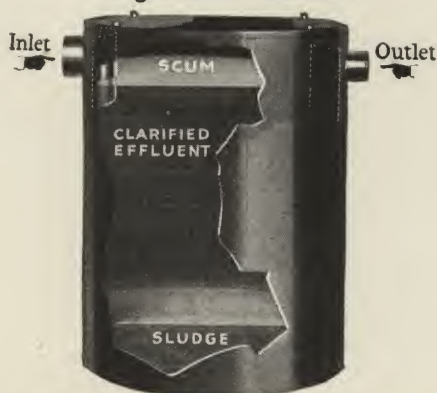
SANITARY SEWAGE DISPOSAL SYSTEMS

Made by
WESTERN METAL SPECIALTY CO.
3020 Calhoun Place, Milwaukee, Wisconsin

Products

"Wemsco" Septic Tanks for homes, cottages, institutions, etc. "Chem-o-let" chemical toilets for homes, cottages, camps, etc. "Standard Automatic" chemical toilets for schools, clubs and public institutions.

Flanged Removable Cover



"Wemsco" Septic Tanks

The "Wemsco" tank is designed for homes, cottages, hotels, etc., where running water is available. The purpose of the septic tank is to assist and expedite the natural process of decomposition and remove the greater part of the solids from the sewage by liquefaction. No complicated design or unnecessary compartments are found in the "Wemsco" tank. Our tanks are guaranteed to function properly and to be as efficient as any tank made.

Description

Wemsco septic tanks are made of 14 ga. copper bearing rust-resisting iron, coated inside and outside with a waterproof and rust-proof enamel. All seams are electrically welded.

Sizes and Capacity of Wemsco Septic Tanks

| No. | Dia. | Height | Capacity gallons | No. Persons Served | Shipping Weights |
|-----|------|--------|---------------------|-----------------------|---------------------|
| 1 | 38 | 48 | 215 | 7 | 210 |
| 2 | 46 | 48 | 340 | 12 | 305 |

Complete information and prices on larger tanks furnished. State kind of building and approximate number of persons to be accommodated.

"Chem-o-let"—Self-Draining Chemical Toilet

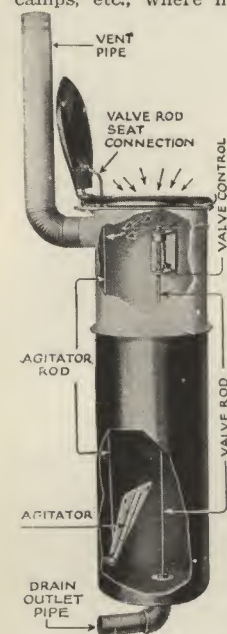
The "Chem-o-let" indoor toilet is convenient, sanitary and odorless and eliminates entirely the disease-breeding, foul-smelling, unsightly outhouse. They are particularly adapted for suburban and farm homes and summer cottages, filling stations, camps, etc., where no sewer or water facilities exist.

No Emptying by Hand

The "Chem-o-let" is self-draining and requires no disagreeable emptying by hand. The principle of sewage disposal is very simple and effective. Lav-o-let chemical, which is used, is diluted in water, thoroughly sterilizes and deodorizes contents at the same time converting it into a state of liquefaction. When the steel tank becomes full it is drained off by means of a valve at the bottom of the tank operated with a detachable key and control rod. This rod extends up to the seat where it is easily accessible. The tank requires draining once in approximately four to five weeks for the average family. Contents is drained into an ordinary drywell the size of an ordinary barrel where it is absorbed by the soil.

Patent Agitator Assures Thorough Chemical Treatment

One of the most important features that contributes towards the efficiency of any chemical toilet is regular, thorough and positive agitation. This problem has been solved on the "Chem-o-let" by having the agitator rod attached to the seat cover; each time the cover is raised preparatory to using, the agitator is automatically set in motion, stirring contents of tank and results in complete and thorough chemical treatment. Agitation is not left to one's memory with this exclusive feature.

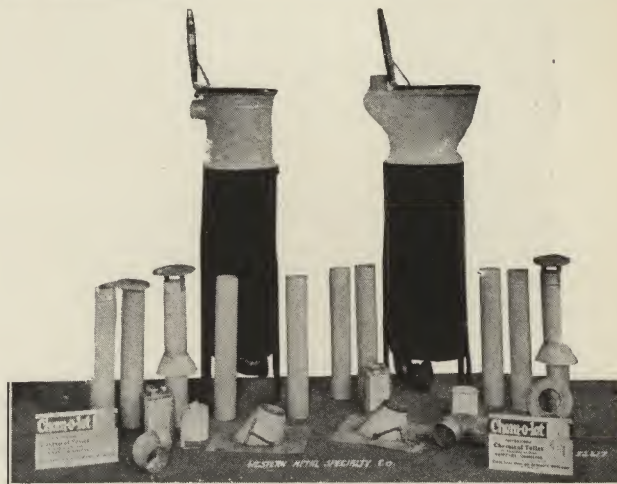


Costs Less Than Ordinary Outhouse

The total cost of a "Chem-o-let" installation including all materials, fixtures and labor is less than that of an ordinary outhouse. The cost of Lav-o-let chemical for a year is only about \$3.00.

Two Types Furnished

"Chem-o-lets" are furnished in two types—Type "A" has a white, glazed, vitreous china bowl and type "F" a pearl gray steel enameled bowl.

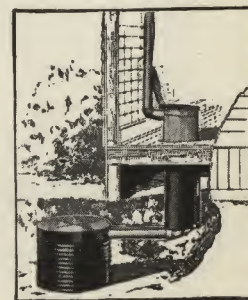


Specifications Type "A" Chem-o-let

- 1—Highly glazed white vitreous china bowl.
 - 1—25 gallon rust-resisting steel tank.
 - 1—Oak finished seat and cover.
 - 1—Valve wrench.
 - 1—Galvanized steel adjustable roof safe.
 - 1—Galvanized steel ventilator cap.
 - 1—2 foot galvanized steel skirt pipe.
 - 8 feet—4 inch grey enameled vent piping.
 - 1—3 inch iron elbow.
 - ½—Gallon can Lav-o-let chemical fluid.
 - 1—Roll of toilet paper and holder.
- Tank dimensions from floor line (oval tank) 13 inches x 15 inches by 35 inches long.
Diameter of valve opening 3 inches.

Specifications Type "F" Chem-o-let

- 1—25 gallon steel tank and enameled bowl combined.
 - 1—Oak finished seat and cover.
 - 1—Valve wrench.
 - 1—Galvanized steel adjustable roof safe.
 - 1—Galvanized steel ventilator cap.
 - 1—2 foot galvanized steel skirt pipe.
 - 8 feet—4 inch grey enameled vent piping.
 - 1—3 inch iron elbow.
 - ½—gallon can of Lav-o-let chemical fluid.
 - 1—roll of toilet paper and holder.
- Tank dimensions from floor line, 14 inches diameter and 34 inches long.
Diameter of valve opening 3 inches.



Type "F" Chem-o-let

Above is shown typical "Chem-o-let" installation connected to new metal drywell furnished at slight additional cost.

Metal Drywell Specifications

Thirty inches diameter by 24 inches high. Made of 18 gauge copper bearing corrugated iron. Shipping weight 44 lbs.

Easily Installed

Anyone can install a "Chem-o-let" with the use of a few ordinary tools, as it requires no skilled labor. Full directions come with each toilet. See illustration.

Send for Booklet "B," giving complete information. Sold by Hardware Dealers and Plumbers.

For further details and literature, write to:

WESTERN METAL SPECIALTY CO.

3020 Calhoun Place
Milwaukee, Wisconsin

CRANE Plumbing and Heating Materials for Every Purpose

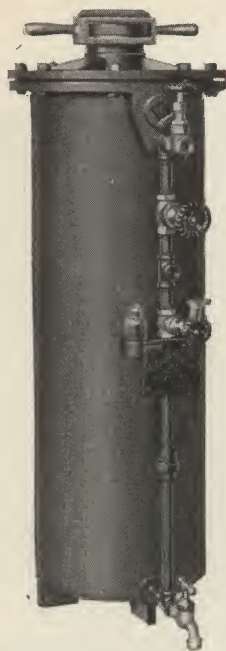
FOR BATHROOM FIXTURES SEE PAGES 320-325

Soft Water, Running Water, for City or Farm Homes

Perhaps as important advances as have recently been made in the plumbing field are the developments in water softeners and automatic water systems.

The first puts the many benefits of soft water within the reach of homes, barber shops, beauty parlors, restaurants, clubs, laundries, bottling works, and industrial plants. The second puts the advantages of running water, and incidentally of all modern plumbing, at the service of homes, clubs, hotels, schools, which are out of reach of city water mains.

Both these improvements, opening new markets and making possible the building of more comfortable, more saleable homes, are of great interest not only to the public but to contractors, dealers, and speculative builders.



The C-W Junior

Here is a practical, efficient water softener at a price that everyone can afford. Requiring more attention than other Crane-Warlo models, it nevertheless stands up and serves for many years. Price, f.o.b. factory, \$115.

Crane-Warlo Water Softeners

Crane-Warlo Water Softeners function simply by passing water of any degree of hardness through a bed of softening mineral. Long study has brought the carefully prepared Crane-Warlo softening mineral to an extremely high state of efficiency and an unlimited durability. The mechanical parts have been planned to give the greatest convenience and a lifetime of service.

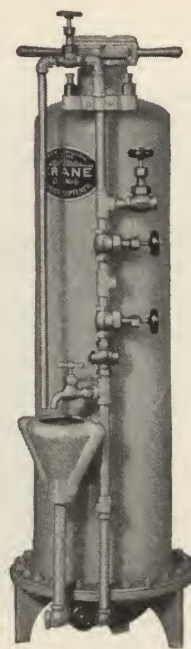
All that is necessary for anyone to have soft water is to hook a Crane-Warlo into the water lines, and occasionally afterward restore the mineral to its original efficiency through a salt wash, which is termed regeneration. Outside of the brief time needed for regeneration, no attention is required. The Electro-Matic eliminates even that; it regenerates automatically.

Crane Automatic Water Systems

Crane Automatic Water Systems are self-contained plumbing units which make running water available anywhere at the turn of a faucet. They are made in all sizes and capacities, pumping from 200 to 6,000 gallons an hour; in two types, shallow well for a vertical lift up to 22 feet and deep well for a lift up to 250 feet; and operate by either electric or gas engine power.

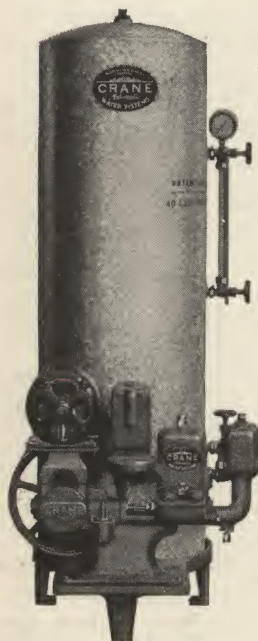
Every Crane system is simple and durable. Parts are oversize for greater strength. Bearings are machined to .0005 of an inch. A wrench is the entire tool kit.

The 72-year Crane reputation stands behind every Crane water system and every Crane-Warlo softener. A request will bring full information regarding either. Or our experts will personally study any set of circumstances and recommend the proper size and type.



Style C (Direct Internal Salting)

For average homes, the Style C softener with direct internal salting is popular. Sizes range from C-1, 12-inch tank, to C-4, 20-inch tank. Size required depends on hardness of the water supply and amount of soft water used. Prices \$230 to \$560.



Shallow Well System No. 215-A

200 gallons an hour capacity. 42-gallon tank. 1/6 h.p. motor. Complete f.o.b. factory, \$120. Other shallow and deep well models, in many capacities, to meet a great variety of conditions, at prices ranging as low as \$85.



The Electro-Matic

Now, a softener as convenient as electric refrigeration. A softener that saves the time and trouble ordinarily needed to watch valves during regeneration. When 100 pounds of salt have been used, a signal flag gives notice to refill the salt tank. There is a margin of five regenerations. Made in styles A, \$285; SA, \$300, and TA, \$350. Prices f.o.b. factory.



For further details and literature, write to:

CRANE CO., 836 So. Michigan Ave., Chicago, Ill.

Hydro-Pneumatic Water Supply Systems

Manufactured by
THE DEMING COMPANY
Salem, Ohio

Agencies in Principal Cities

(Established 1880)

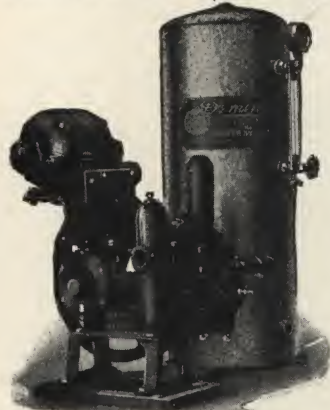
Products

Cistern, Well and Windmill Pumps, Rotary Pumps, Hydraulic Rams, Spray Pumps, Nozzles and Accessories, Triplex and Deep Well Power Pumps for Various Services and for any power, Hydro-Pneumatic Water Supply Systems.

Fig. 2085 Electric Water System

For wells and cisterns where the water is not more than 25 feet vertically below the pump.

This is a practically noiseless system designed for hydro-pneumatic water supply service. It is self-starting, self-lubricating, self-priming, self-stopping—self-operating in all respects. It is furnished assembled as illustrated, making a complete system with electric motor, automatic switch, pulley, belt, spring belt tightener, air changing device and fresh water outlet. For further information regarding this system write for Catalog No. 54.



Deming "Marvel" Shallow Well Water System

Fig. 2085 "Marvel" Water Systems

Equipment consists of a "Marvel" Pump (Fig. 1685) with a 15, 42, 53 or 120-gallon galvanized tank; pressure gauge; water gauge; relief valve; fresh water outlet; cast iron sub-base and fittings to connect pump and tank—a complete system ready for use as soon as connections are made to pipes and electric wires.

| Size No. | Cap. of Pump Gals. per Hour | Cap. of Gals. | *H.P. of Motor | "Marvel" Pump Details | | | | | Overall Dimensions Inches | | | Ship. Wght. of System Lbs. | Cipher | Price |
|----------|-----------------------------|---------------|----------------|-----------------------|------------|-------------|----------------|--------------------------|---------------------------|-------|--------|----------------------------|---------|----------|
| | | | | Cylinder | | Pipe Con'ns | | Max. Work. Pressure Lbs. | Hgt. | Width | Depth | | | |
| | | | | Dia. In. | Stroke In. | Suction In. | Dis-charge In. | | | | | | | |
| 1-15 | 240 | 15 | 1/6 | 1 1/2 | 1 1/2 | 1 | 1 1/2 | 50 | 33 | 25 | 28 1/2 | 190 | Sallett | \$106.00 |
| 1-42 | 240 | 42 | 1/6 | 1 1/2 | 1 1/2 | 1 | 1 1/2 | 50 | 53 | 25 | 30 | 230 | Salol | 112.00 |
| 1-53 | 240 | 53 | 1/6 | 1 1/2 | 1 1/2 | 1 | 1 1/2 | 50 | 53 | 25 | 33 | 260 | Salty | 115.00 |
| 1-120 | 240 | 120 | 1/6 | 1 1/2 | 1 1/2 | 1 | 1 1/2 | 50 | 65 | 25 | 38 | 365 | Salvo | 132.00 |
| 2-15 | 450 | 15 | 1/3 | 2 | 1 3/4 | 1 1/4 | 1 3/4 | 50 | 33 | 27 | 30 | 235 | Sally | 147.50 |
| 2-42 | 450 | 42 | 1/3 | 2 | 1 3/4 | 1 1/4 | 1 3/4 | 50 | 53 | 25 | 31 | 275 | Salmi | 153.50 |
| 2-53 | 450 | 53 | 1/3 | 2 | 1 3/4 | 1 1/4 | 1 3/4 | 50 | 53 | 27 | 35 | 305 | Salver | 156.50 |
| 2-120 | 450 | 120 | 1/3 | 2 | 1 3/4 | 1 1/4 | 1 3/4 | 50 | 65 | 27 | 40 | 410 | Sambo | 173.50 |

*Regularly furnished for 110-220 volt, 60-cycle, single phase, alternating current. When current characteristics differ, be sure to so state, when ordering.

Fig. 1062 "Oil-Rite" Deep Well Water Systems

For use where the water level is at a greater depth than 25 feet vertically below the pump.

The simplicity and rugged construction of this system insures long and satisfactory service. These systems are for use in wells where the water level is at a greater depth than 25 feet and are made in capacity ranges to suit practically any requirement.

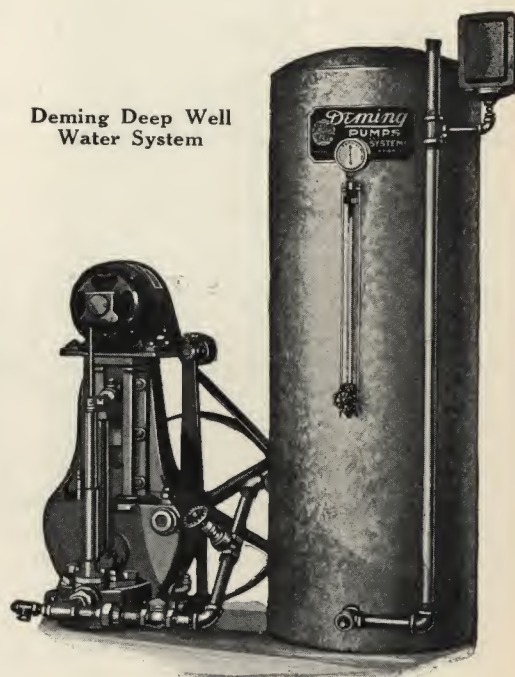
The system illustrated at the right may be made up of any size tank and pumping head depending on capacity requirements. The pumping head may be equipped either with overhead motor mounting, as illustrated, or side motor mounting and fitted with any standard type of drive. The overhead mounting is furnished on the 6-inch and 10-inch stroke sizes only with "TC" belt and idler, "TR" roller chain or "TD" silent chain drives. For further information write for Deep Well Bulletin.

Table Showing Fig. 1062 "Oil-Rite" Deep Well Outfits

| Stroke Inches | PIPE SIZES | | Wood Rod Inches | †CYLINDER FIG. 288 BRASS LINED | | Gallons per Hour | MAXIMUM LIFT IN WELL—FEET | | *H.P. Motor Required |
|---------------|------------------|-----------------------|-----------------|--------------------------------|-----------------------------------|------------------|---------------------------|----------------------------|----------------------|
| | Drop Pipe Inches | Discharge Pipe Inches | | Inside Diameter Inches | Outside Diameter (Extreme) Inches | | With Open Discharge | With 40 Lbs. Tank Pressure | |
| 6 | 1 1/2 | 1 | 1 1/8 | 1 3/8 | 2 3/8 | 100 | 305 460 | 255 410 | 1 1/2 2 1/4 |
| | 2 | 1 | 1 1/8 | 1 11/16 | 2 3/4 | 180 | 205 300 | 135 235 | 1 1/2 2 1/4 |
| | 2 1/2 | 1 | 1 1/8 | 2 1/4 | 3 1/2 | 275 | 135 200 | 60 130 | 1 1/2 2 1/4 |
| 10 | 2 | 1 | 1 3/8 | 1 11/16 | 2 3/4 | 265 | 340 475 560 | 265 400 485 | 1 1/2 2 3 |
| | 2 1/2 | 1 1/4 | 1 3/8 | 2 1/4 | 3 1/2 | 405 | 230 320 500 | 155 245 425 | 1 1/2 2 3 |
| | 3 | 1 1/4 | 1 3/8 | 2 3/4 | 4 1/8 | 610 | 150 210 330 | 75 135 255 | 1 1/2 2 3 |
| | 3 1/2 | 1 1/2 | 1 3/8 | 3 1/4 | 4 3/4 | 855 | 105 150 230 | 30 75 155 | 1 1/2 2 3 |
| | 4 | 1 1/2 | 1 3/8 | 3 3/4 | 5 1/2 | 1145 | 110 170 | 40 100 | 2 3 |

†If desired all brass cylinders may be furnished at slightly higher prices.

Deming Deep Well Water System



System No. 6001
Using Fig. 1062—6-in. Stroke, Overhead Drive Type TC

For further details and literature, write to:

THE DEMING COMPANY, Salem, Ohio

Hoosier GalVAZink Water Systems

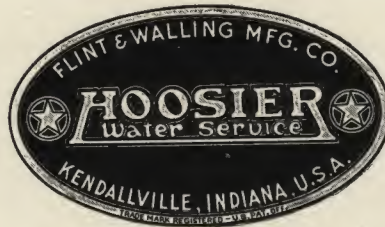
Manufactured by the

FLINT & WALLING MANUFACTURING CO.

19 Oak Street, Kendallville, Indiana

The Hoosier Line Includes:

Complete electrically driven automatic water service installations for use with shallow or deep wells, as well as water systems for use with gas engine or other belt power units, and power driven pumps and working heads for all purposes.



Hoosier electrical installations operate from current as provided by central power stations, or from farm lighting plants. Other Hoosier installations for gasoline engine power, as well as installations where power is provided by STAR Windmills.

For Shallow Wells and Cisterns

The HOOSIER WATER SERVICE installation shown to the right is designed for use in connection with shallow wells and cisterns. It is made in a number of sizes, and provides a complete, compact automatic water service especially suited for the home owner who does not have municipal water service available.

Major Improvements

New Refrigeration Type Motor, designed to start at full load and operate for hours without overheating or harm. New rubber cushion mounting for the motor, which absorbs starting shocks and gives unusually smooth and quiet operation. New V-belt, which does away with the need for noisy idlers, needs no attention, is very durable, and is unaffected by dampness.

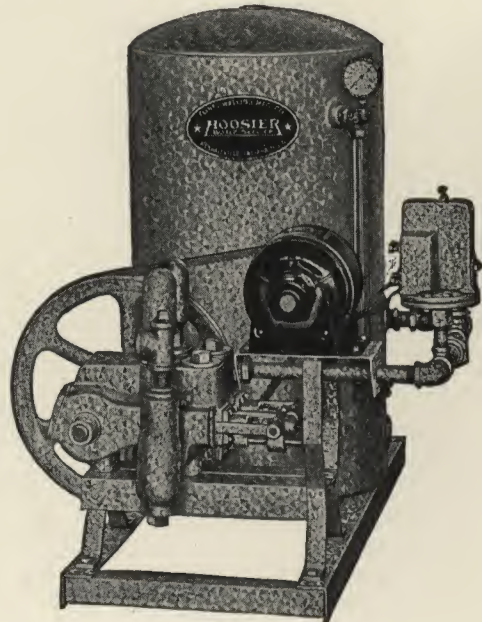


Fig. 231

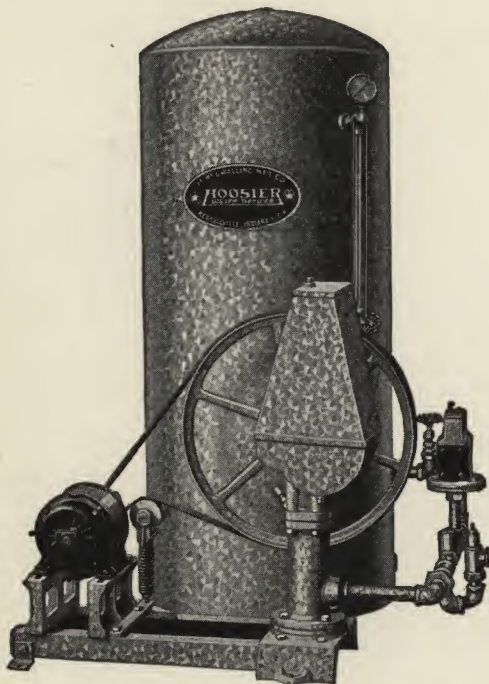


Fig. 1456-A

The illustration above shows one of the deep well installations, using electric current, and automatically controlled. Complete in every detail. All-galvanized finish, inside and out. Very rust resisting.

No Mixing of Oil and Water

All moving parts run in a constant bath of oil, yet the pump is so designed that water cannot escape into crankcase and dilute the oil, and no oil can get into the pumping cylinder to pollute the water supply.

If desired, Hoosier installations may be had for supplying fresh water, direct from the well. Often desirable for drinking and culinary purposes.

GALVAZINK Coating

Hoosier installations are protected against rust and corrosion by our famous GALVAZINK finish. This zinc-dipped surface, applied by our hot-dip process, is a superior finish for any article used for handling water. It is superior to paint, and is very easily kept clean. As durable as the metal to which it is applied.

Catalogue describing this complete line, as well as other information useful to those needing a domestic water supply, will be sent promptly upon request.



For further details and literature, write to:

FLINT & WALLING MFG. CO.

19 Oak Street
Kendallville, Indiana

Paul Soft Water Generators

Both Automatic and Hand Operated Types

Paul Water Systems

MANUFACTURED BY

THE FORT WAYNE ENGINEERING & MFG. CO.

FORT WAYNE, IND.



Paul Products

A complete line of water softeners for the home, both hand-operated and electrically operated automatic types. Unusually large capacity with small tanks. Long life and high efficiency. Also a complete line of private water systems for home and farm.

SOFT WATER---Whenever, wherever you want it!

The Paul Soft Water Generator provides soft water at full city pressure at every faucet in the house where needed. It is just as pure as your water supply. Paul Type "B" is of the Zeolite type with the new double wash feature. Does not affect pressure so may be used with a private water supply system with perfect success. Monel-metal filter mat (patent applied for) provides perfect distribution without sand or gravel and filters suspended matter from water before it reaches the mineral.

Type AR1 is electrically operated—just touch a button and the motor does all the work of regeneration. Salt tank requires filling only once in 12 months. Costs almost nothing to operate.

Regeneration

Because of high capacity and conservative Paul ratings regeneration is required only at long intervals and even in the hand operated type, it is a simple process any woman can perform. Only five valves. Type AR1 Automatic is regenerated by simply touching a button.

SIZES: Paul Soft Water Generators are made in several sizes with capacities ranging from 24,000 grains hardness to 60,000 between regenerations.

Paul WATER SYSTEMS

Paul Systems provide running water under pressure for suburban homes and farms. They are entirely automatic, self-priming and fully guaranteed. Thoroughly dependable and fool proof. Type "US" Systems for deep or shallow wells come assembled as complete units ready to start working when uncrated and hooked up.

A Paul System for every need!

There is a Paul Water System for every need. Water may be drawn from any source—deep or shallow well, spring, lake or cistern. Paul Systems are made in all sizes with capacities ranging from 100 gallons per hour to 1950 gallons per hour.

SEND FOR

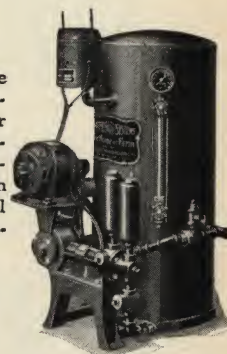
Bulletin on Soft Water Generators No. 5036.
Automatic Water Softener Bulletin No. 5038.

No. 5033 Paul Systems for Shallow Wells.

No. 5034 Paul Systems for Deep Wells or General Catalog, No. 5023.

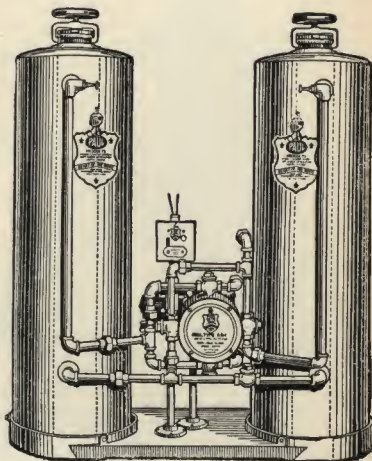
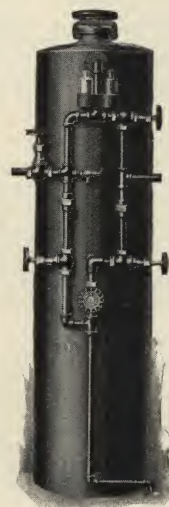
Paul Water Systems

A complete line of pumping equipment, Paul Water Systems for shallow wells and cisterns. Paul Cushion Stroke Deep Well Pumps and Storage Systems.



Paul Soft Water Generator

The new up-flow double-wash principle makes Paul water softening units more efficient and dependable than ever.



Paul Type AR1 Automatic Regenerating Water Softener
Electric Motor Driven



For further details and literature, write to:

FORT WAYNE ENGINEERING & MFG. CO., Fort Wayne, Ind.

HOME BUILDERS CATALOG

MYERS WATER SYSTEMS

Established
1870

Made by
THE F. E. MYERS & BRO. CO.
Ashland, Ohio

Branches and Distributing
Houses in Principal Cities

A Pump for Every Purpose

Only a few of the Myers Pump and Water systems are illustrated on these two pages but if you will write us we will gladly send you a copy of our catalog showing our complete line of hand and power pumps for every purpose. Myers Pumps are powered with electric motor or gasoline engine or, if desired, can be furnished for hand or windmill operation. A Myers Pump insures a constant supply of running water for the home or farm, or for other purposes. We make them for both shallow and deep wells, that is to say, for wells less or more than 24 feet in depth. Direct Systems pump water direct from the cistern or well to the faucets; Pressure Systems pump water to a tank in which a constant air pressure is automatically maintained. Whatever your pumping problem may be there is a Myers Pump that will meet every requirement.



TRADE MARK

No. 2211

Illustrates the Myers Junior Direct Water System, with capacities of 200 and 300 gallons per hour. Pumps the water direct to the water taps. It is motor driven, automatically controlled, economical and efficient. Designed for shallow well service only. Can be operated by any current. A wonderful outfit for homes, farms, country estates, etc.

No. 2181

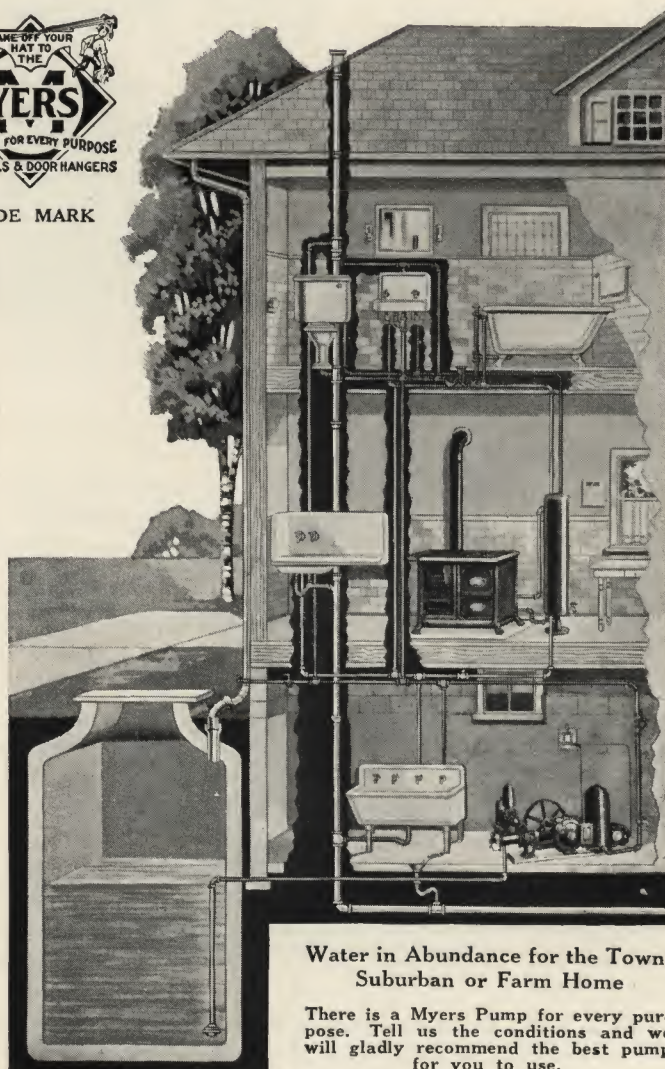
Illustrates the Myers Self-Oiling Home Water System for shallow wells and cisterns. Designed for operation from any kind of city current or from farm lighting and power systems. This System comes in two sizes with capacities of 200 and 300 gallons per hour, and is complete in every respect ready for installation.

Fig. 2319

Shows one of the Myers Deep Well Water Systems completely equipped with pump, motor, tank, switch, gauge, air cylinder, etc. (everything except the lower cylinder and down or suction pipe), ready for installation. This outfit will supply an abundance of water for large homes, estates, etc., where the daily water requirements are greater than ordinary. It is self-oiling, automatically controlled, easily installed and operated, and is furnished with or without Four Foot Anti-Freezing Set Length.

Fig. 2253

The Myers Direct Water System for deep wells, does not require a pressure tank. It pumps the water fresh and cold from its source of supply direct to the water taps. As indicated by the illustration, it is a complete unit (except lower cylinder and down or suction pipe) ready for installation. It has a capacity up to 450 gallons per hour according to size of lower cylinder. Self-oiling, self-starting, self-stopping it overcomes numerous problems so frequently encountered in deep well service.



Water in Abundance for the Town,
Suburban or Farm Home

There is a Myers Pump for every purpose. Tell us the conditions and we will gladly recommend the best pump for you to use.

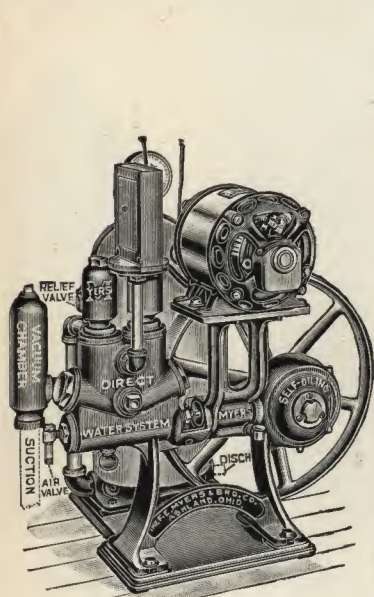


Fig. 2211—Myers Junior Direct Water System for Shallow Wells

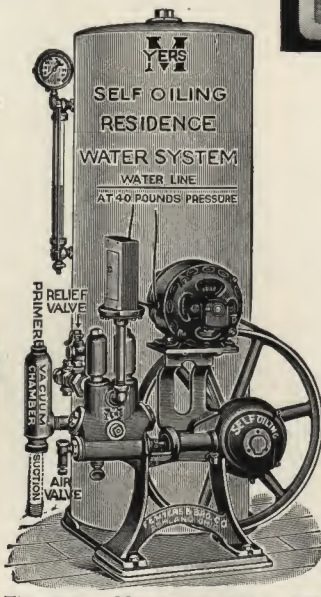


Fig. 2181—Myers Self-Oiling Pressure System Pump for Shallow Wells and Cisterns

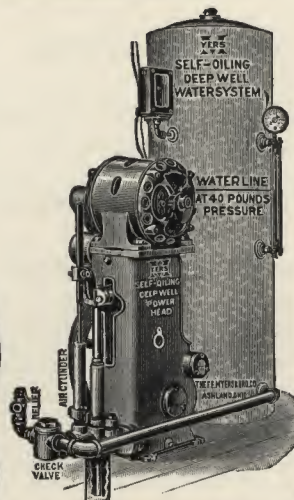


Fig. 2319 — Myers Self-Oiling Deep Well Pressure Water System. Belt or Chain Drive.

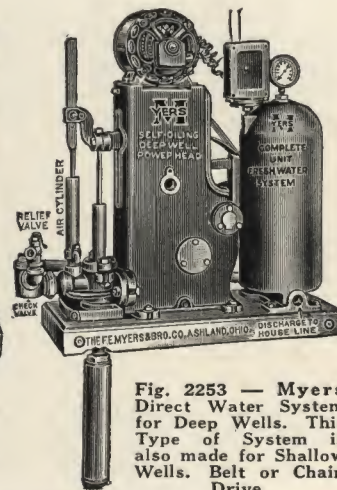


Fig. 2253 — Myers Direct Water System for Deep Wells. This Type of System is also made for Shallow Wells. Belt or Chain Drive.



For further details and
literature, write to:

THE F. E. MYERS & BRO. CO., Ashland, Ohio

Myers Water Pumps and Door Hangers (Continued)

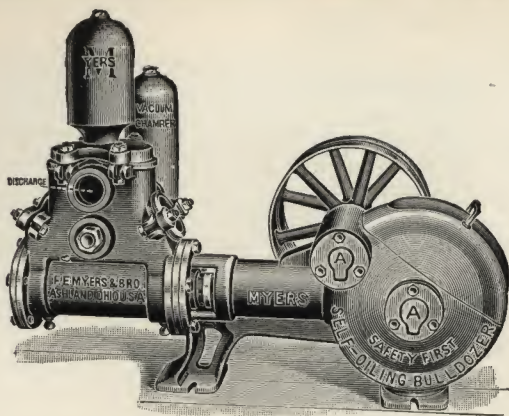


Fig. 1866
Myers Self-Oiling Power Pump for Shallow Wells, Cisterns, Etc.

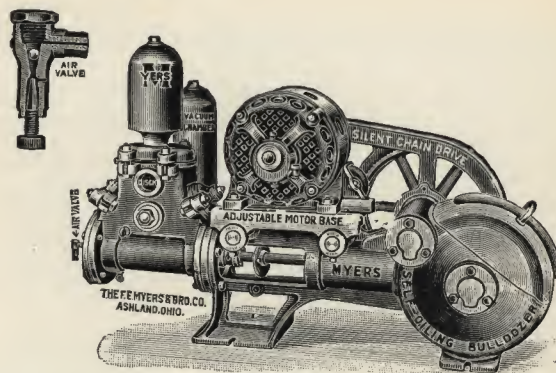


Fig. 2346
Myers Self-Oiling Power Pump Complete with Motor and Silent Chain Drive

Myers Self-Oiling Bulldozer Power Pumps for Shallow and Deep Well Service

High in Efficiency—Low in Operating Cost

Myers Self-Oiling Bulldozer Power Pumps with their numerous patented features have created a new standard of power water service which cannot be compared with water facilities of but a few years ago. When compared with older types they have larger valves, more liberal and direct waterways, a positive self-lubricating system, improved method of power application, housed working parts and other features which permit operation against heavy pressure or at high speed securing large volume and high efficiency at a minimum of cost and without the fear of accidents or breakage through carelessness, poor lubrication or exposed working parts.

Myers Self-Oiling Power Pumps are designed for general service in agricultural, commercial and industrial fields. Twelve sizes for shallow wells, or cisterns and five sizes for deep operation compose the line. Capacities 250 to 10,000 gallons per hour. Operation any power. Inside or outside installation. Rightly named general service pumps, whether it be in the home, on the farm or country estate where pumping duties are comparatively light; in the creamery or dairy where it is always necessary to have plenty of fresh water; at the park, summer resort or golf course where sprinkling and sanitary conditions depend on an ample supply of pure water; in the mill, mine or factory where plenty of water is absolutely essential in the daily activities of the operatives; in the public school or college, in the hospital or sanitarium where pure water is of vital importance and is given every consideration; in road building and similar work where water is now used in large volume and must be near at hand to keep down construction costs; in fact, wherever water is used in sufficient quantity to justify the installation of a power pump, there is a Myers Self-Oiling Power Pump, waiting, willing and ready to give twenty-four hour water service without care or attention, and at a minimum of cost that cannot be approached by old style pumps.

MYERS Door Hangers

Myers Stayon and Tubular Door Hangers fulfill the demand for hangers that are storm, dirt and bird proof, stay on the track, and which are durable and easy to push or pull. They are manufactured in numerous styles and sizes and offer many practical features not to be found on other hangers. Special improvements include adjustable, flexible and stayon features, roller bearings, heavy steel axles, etc. Some styles are adapted for either light or heavy sliding doors on all kinds of buildings while other types are designed for hinged sliding or folding doors on garages and similar buildings.

Several of the most popular styles are illustrated herewith, but for the complete line it requires a special catalog to fully illustrate, describe and list it. A copy of this catalog with information and prices will be sent promptly to anyone allied with the building industry. Dealers' prices to builders' supply houses, lumber merchants, dealers, etc.

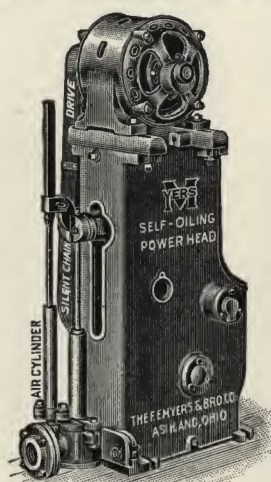
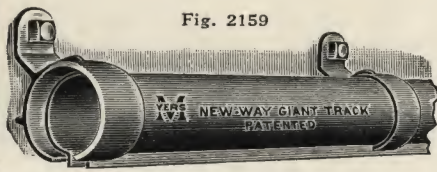
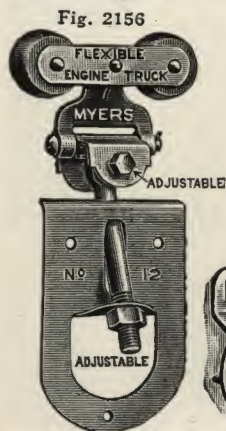


Fig. 2359
Myers Self-Oiling Deep Well Power Pump or Working Head Complete with Air Compressor and Motor for Silent Chain Drive

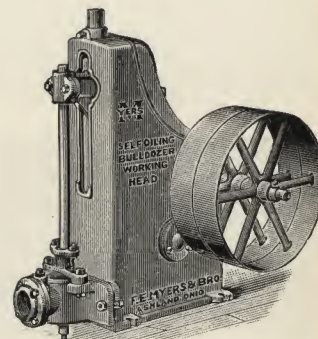


Fig. 1996
Myers Self-Oiling Deep Well Power Pump or Working Head



Fig. 1154

Catalog and Information

Limited space prevents detailed description and full sized illustrations but to those who are interested in modern power water facilities, either for sale and installation or for personal use, we will be pleased to send catalog and information.

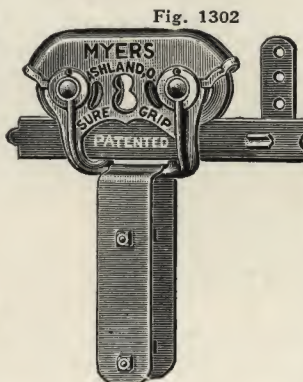


Fig. 1302

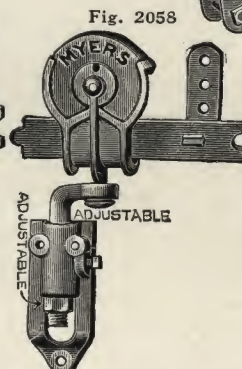


Fig. 2058



Fig. 998



For further details and literature, write to:

THE F. E. MYERS & BRO. CO., Ashland, Ohio

CRANE CO.

Plumbing and Heating Materials for Every Purpose

Crane Co., General Offices

CRANE BUILDING, 836 SO. MICHIGAN AVE.

CHICAGO, ILL.

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| | | | | | |
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*All the branches listed except those marked with asterisks have Exhibit Rooms and interesting displays of plumbing materials.
For Water Softeners see page 314.

Quiet, All-White Corsyn

C10400—Scientific construction in the superior *Corsyn* closet has overcome objectionable sounds of flushing. This, with the syphon jet action, and twice-fired vitreous china ware, makes it one of the best closets obtainable. All-white model is illustrated.



Tiled-in Tarnia with Shower

C3312-A—Made for building-in in any position, the *Tarnia* bath, of porcelain enamel on iron, is popular among discriminating home-builders. The model shown, tiled into the wall at the back and left end, has concealed fittings. A plate glass enclosure protects the shower, eliminating clinging curtains. Nominal length 5½ feet, and width 36 inches.



Gothic Design in Elegia

C210-M1—Beautiful lines of Gothic architecture give this *Elegia* lavatory rare distinction. Made of twice-fired vitreous china. Combination hot and cold water supply and *Securo* quick draining waste complete an ideal equipment. Top, 32 x 25 inches.

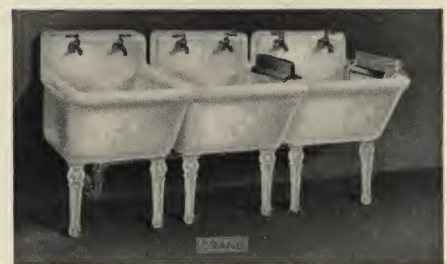


Solid Porcelain Kitchen Sink

C19100-A—No ware for sinks is so easy to clean as the solid porcelain of this fixture. Twin sloping drainboards: *Agilis* double faucet with swinging spout. Sizes, 52 x 24 inches and 61 x 26.

For the Finest Homes

The fixtures on this page will lend dignity, beauty, comfort, and convenience to the finest homes and measure up to the most exacting taste. Twice-fired vitreous china in closet and lavatory, solid porcelain in sink and tray, are the finest wares known for these pieces. Easily cleaned, they glisten for a lifetime. The tiled-in bath gives maximum opportunity for beauty and originality in bathroom decoration and arrangement. Fixtures are grouped with a consistent price range in view.



Solid Porcelain Laundry Trays

C21160—Much wash day fatigue may be eliminated with these white solid porcelain laundry trays, in battery. They are supported on solid porcelain legs. A pair of *Crane Agilis* faucets for hot and cold water supply each compartment. One cold water faucet has attachment for hose. Furnished in two sizes, 30x26 inches, and 26x26 inches and in batteries of two and three trays, as desired.



For further details and literature write to:

CRANE CO., 836 So. Michigan Ave., Chicago, Ill.

CRANE Plumbing and Heating Materials for Every Purpose

Beauty and Economy

Beauty and convenience are splendidly served and costs kept moderate by the fixtures on this page. The *Corwith* provides a built-in bath, reducing floor space to be kept clean. The syphon jet construction so much in demand is provided in the *Saneto*. The *Nova* is a compact and handsome lavatory. The grouping shown has been carefully selected for average homes.



Beautifully Modeled Corwith

C3290-RA—Highlights play on the four receding planes of the *Corwith* bath, heightening the glistening beauty of the porcelain enamel on iron. A sloping end contributes to comfort. In the model shown, for building-in back and right, end, all fittings are concealed and only the controlling handles show. The supply is near the left end. Handles are all-china with china escutcheons. Bath has shampoo with reinforced rubber hose, spray and hook. The shower, with concealed fittings, has a shower head with removable face for easy cleaning, and ball joint to change direction of flow. Shower curtain is white duck. If the same bath is wanted for built-in back and left ends, C3290-LA should be specified. Nominal lengths, 5 and 5½ feet.



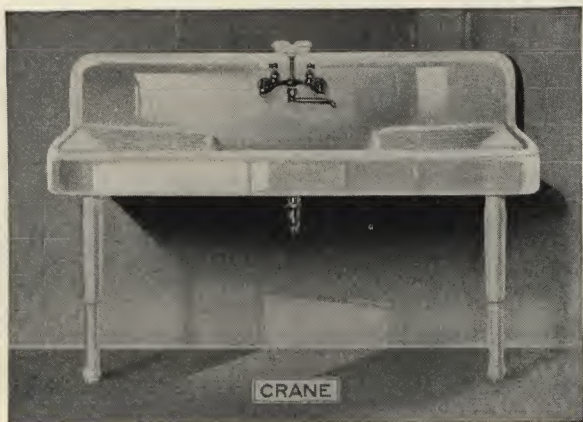
The Graceful Nova

C270-S1—Compact and graceful, the *Nova* lavatory has rounded contours which eliminate corners where dirt might cling. Moulded of twice-fired vitreous china, it is shown with *Agilis* double faucets, *Securo* quick draining waste and china soap dish. Sizes: 30 x 24, 27 x 22, and 24 x 21 in.



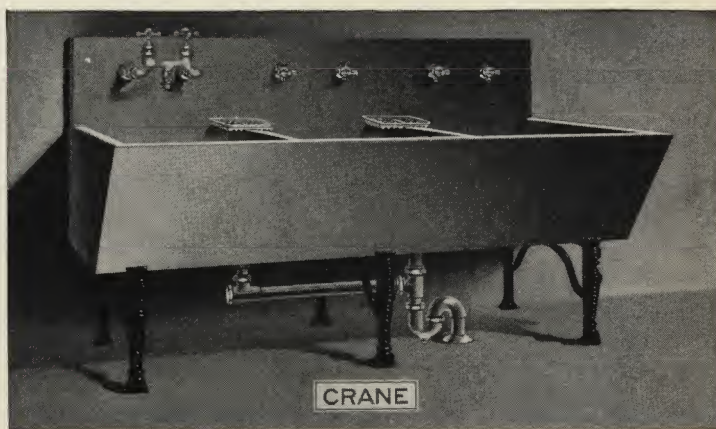
Saneto Syphon Jet Closet

C10612—With syphon jet construction to give exceptionally quick and vigorous flushing action, the *Saneto* is one of the best closets made. The twice-fired vitreous china ware never loses its glistening whiteness. The design, simple and graceful, harmonizes with the best Crane lavatories and baths. All exposed metal, nickel plated brass. Seat and cover are birch, mahogany finish, with bar hinge.



Double Drainboard Sink

C19180-J—The double drainboard sink of porcelain enamel on iron is a popular fixture. The drainboards on each side of the compartment add to the utility of the sink. It is supported on adjustable enameled iron legs, placing the top of the sink from 30 to 36" from the floor to suit the convenience of the user. On the integral back is an *Agilis* double faucet, china soap dish and swinging spout. Sizes over all, 60 x 20, 60 x 22, 74 x 20, and 74 x 22 inches.



Convenient Laundry Trays

C21274—Economical, sanitary and durable, Alberene stone has been found to be a material well adapted to laundry trays. It is a quarried stone, gray in color and uniformly dense. These Alberene stone trays are made with one, two or three compartments. Supported on painted cast iron legs. In the type illustrated the back extends 12 in. above trays. A double *Telsa* faucet pail hook and hose attachment equip the first section. Other compartments have *Telsa* short pattern faucets in pairs. Depth, 16 inches. Width, 24 inches. Lengths: 3-compartments, 72, 78, 84 and 90 inches; 2-compartments, 48, 54 and 60; 1-compartment, 24, 30 and 36.



For further details and literature write to:

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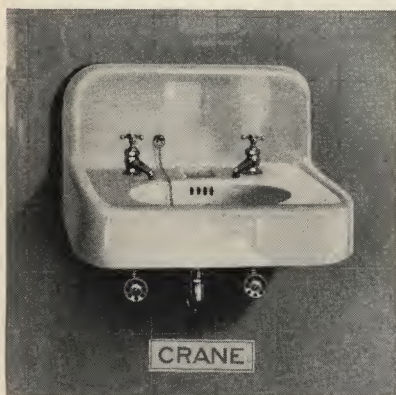
CRANE Plumbing and Heating Materials for Every Purpose

The very esteem in which Crane plumbing fixtures, valves and fittings are held; the reputation they have earned for beauty and quality; have created in many quarters an impression that Crane materials are more expensive than others. The impression is erroneous. Crane fixtures cost not a penny more than any others of comparable design and accepted standing.

In the wide range of the Crane line are fixtures of every type, suited to every purpose, at prices to fit any purse. Whatever the price, Crane quality is never sacrificed. Every piece is given the full benefit of Crane care in manufacture and inspection.

On this page are grouped five fixtures selected for their moderate price range. Simplicity of design and the use of porcelain on iron ware for lavatory, bath and sink; twice-fired vitreous china for closet; and granitine for laundry trays; has resulted in strict economy, which is also combined with attractive designs and lasting serviceability.

Nothing has been sacrificed in this installation to affect convenience or sanitation. It represents a wise investment, adequately meeting, at low cost, the plumbing needs of thousands of homes. The solid merit which will be found in these fixtures will be a source of lasting satisfaction to any buyer.



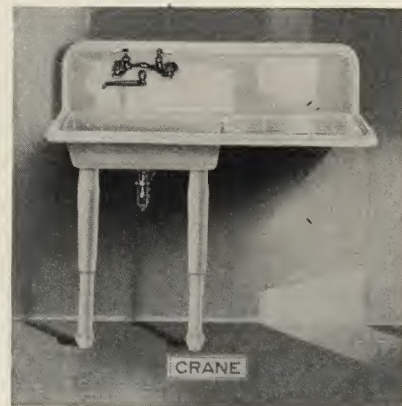
Compact and inexpensive

C2210-P5—The *Nevada* lavatory is designed to combine economy with service where the building budget must be held at the minimum. Cast in one seamless piece, of porcelain enamel on iron, it is here shown with *Telsa Jr.* faucets and chain and rubber stopper on waste. Sizes: 21 x 17 in.; 24 x 18; and 24 x 20.



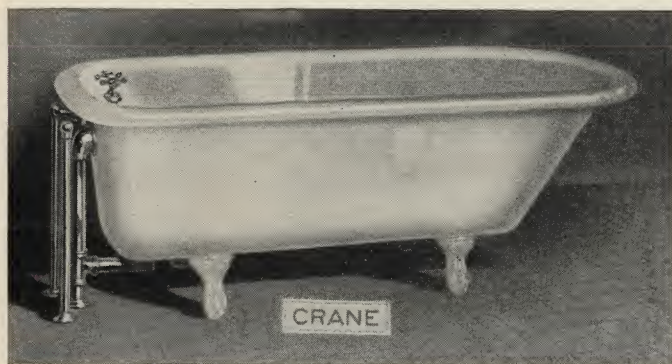
Illini vitreous china closet

C11180—The *Illini* closet, of twice-fired vitreous china, has the washdown syphon action. It is an economical and satisfactory fixture. The ware is thoroughly sanitary and easy to keep clean. The china low tank, the mahogany finish birch ring seat and cover, lend attractiveness. Exposed metal parts nickel plated brass.



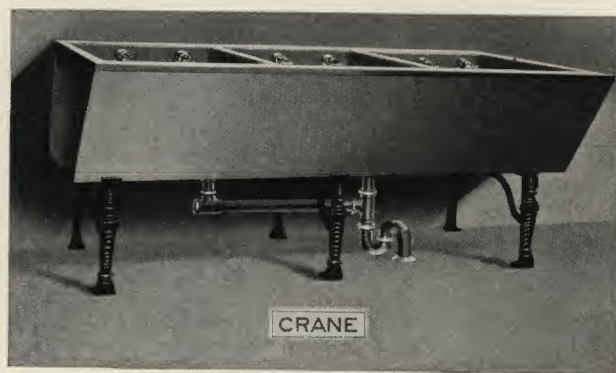
Compact, convenient sink

C19250-RK—More economical than the sinks shown on preceding pages, this porcelain enamel on iron sink has had nothing of utility sacrificed. Adjustable legs make possible installation at the most convenient height, between 30 and 36 inches. Crane double faucet with swinging spout provides hot, cold, or tempered water. Supplied with wall brackets only, without legs, if desired. Size, 52 1/4 x 20 1/4. If left-hand drain-board is wanted, specify C19250-LK.



The Doris bath on legs

C3442-E8—Economical and durable, the *Doris* bath gives satisfactory service, when price is a prime consideration. It is porcelain enamel on iron inside and painted on the outside. It is fitted with a *Telsa* bath faucet for hot and cold water. The waste, with rubber stopper, is connected with the overflow. Exposed parts are nickel-plated brass. Nominal lengths: 4, 4 1/2, 5, 5 1/2 and 6 feet.



Granitine laundry trays

C21292—Cast in a single piece, of a special cement composition, supported on painted cast iron legs, with metal rims and wringer guards, granitine laundry trays will give satisfactory service. Equipped with rough nickel-plated "*Telsa*" laundry tray faucets. One cold water faucet is threaded for attaching hose. Lengths: 3-compartment, 72, 80 and 90 inches; 2-compartment, 48, 54 and 60 inches; 1-compartment, 25, 27 and 31 inches.



For further details and literature write to:

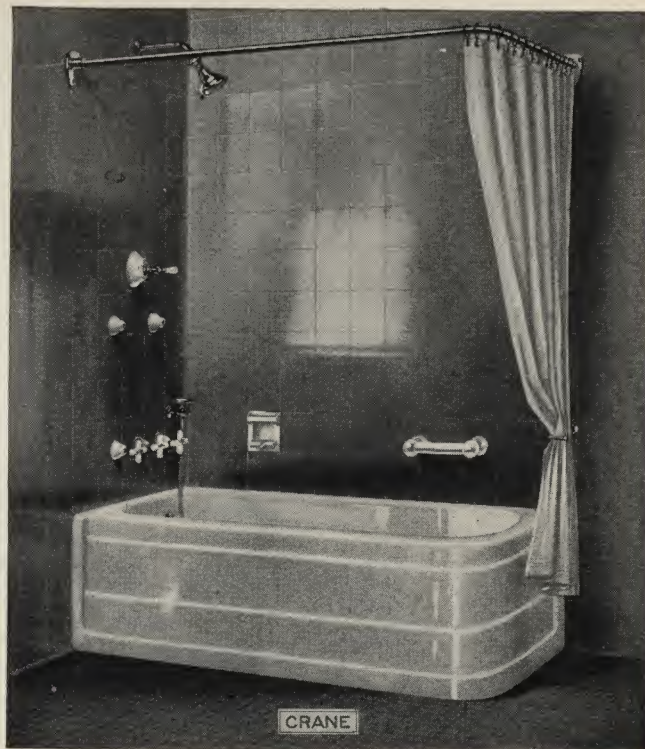
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CRANE Plumbing and Heating Materials for Every Purpose



Solid Porcelain Coronet Bath

C2910-LA—Of white solid porcelain, built low and with a sloping head at the end, this *Coronet* bath, both from the standpoints of beauty and comfort is a masterpiece. It is here shown for building into a recess. Fittings are of the concealed type. Escutcheons and valve handles are china and the few exposed metal parts are of nickel plated brass. This model has fittings at the left. If desired at the right, C2910-RA should be specified. The bath is 33 in. wide. Nominal lengths, 5, 5½ and 6 ft.



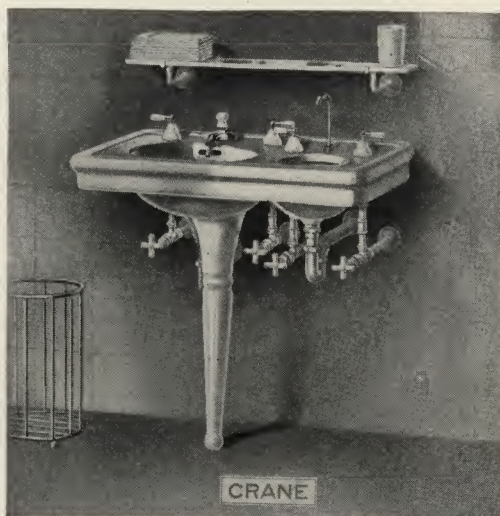
Corwith, a Popular Design

C3284-LA—The *Corwith* porcelain enameled on iron bath is one of the most popular Crane designs. In this model, for building-in back and left end, all fittings are concealed. Only controlling levers and handles show. Upper lever controls the mixing valve for the shower. Two concealed stops below regulate the flow of water. The lower china handles control the flow of hot and cold water to the bath and drain. A shampoo spray may also be used for rinsing tub. Shower head has a removable face and adjustable ball joint. If desired for building in back and right end, specify C3284-RA. Nominal lengths, 5 and 5½ ft.



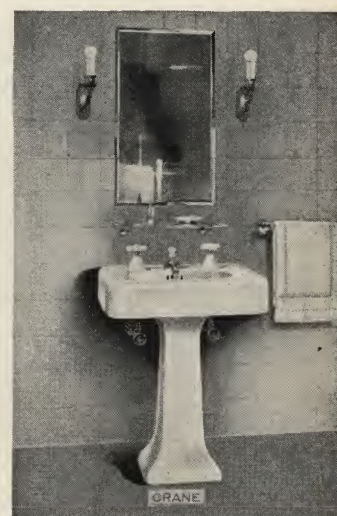
Nova on Wall Brackets

C402-C1—A *Nova* lavatory, of twice-fired vitreous china, with wall brackets leaving the floor free for easy cleaning, is here shown. Rounded contours leave no place for dirt to cling. Integral spout, overflow and splash lip. *Securo* combination fixture and quick draining waste. Sizes: 30 x 24; 27 x 22, and 24 x 21 in.



The Premo Dental Lavatory

C1200—The dental lavatory is daily becoming more essential in the well appointed bathroom. The *Premo* offers a full sized lavatory on the left hand side and a dental basin at right. To assure the solidity of its twice-fired vitreous china top, both a pedestal leg and wall brackets give staunch support. Lavatory has combination fixtures, with *Securo* quick draining waste. Dental lavatory is equipped with combination quick compression gooseneck supply fixture. Size, 30 x 20 in.



Majestic in Appearance

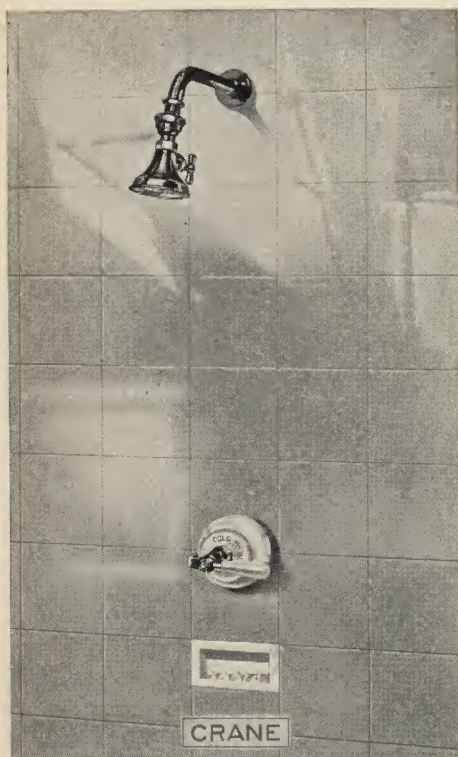
C2002-M1—The *Majestic* is a handsome pedestal lavatory of porcelain on iron. It has combination cold and hot water supply, *Securo* quick draining waste, china handles and escutcheons. Exposed metal nicked brass. Also supplied variously fitted. Sizes, 24 x 20 and 27 x 22 inches.



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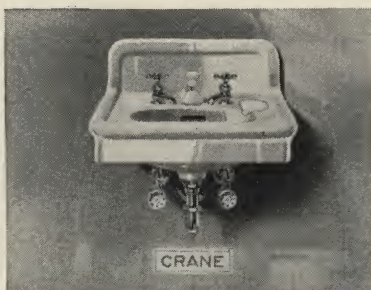


With Concealed Fittings

C4375-B—A shower with all piping concealed is shown here. A 4-inch shower head, volume control, and china trimmed Crane mixing valve with single lever handle permit the user to obtain hot, cold or tempered water as desired. The ball joint gives direction of flow as desired. Face is removable for easy cleaning.

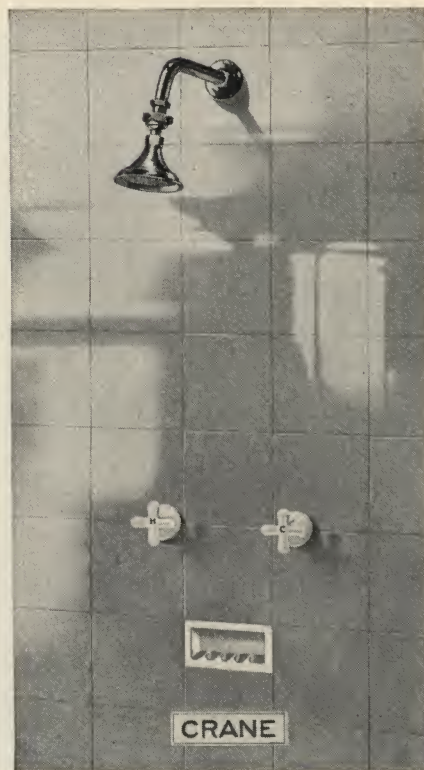
For the Morning Shower

Making possible a quick, invigorating morning bath, a shower in the home enables every member of the family to start the day in glowing spirits. Crane shower heads and attachments, arranged in a recess or over the tub, make the home shower convenient and delightful. Crystal enclosures, Aqua-silk or white duck curtains help to protect the bathroom floor from splashing. Two of the many Crane showers are shown on this page.



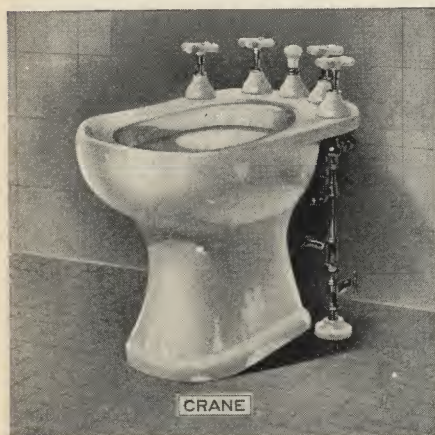
The Compact Clermont

C750-S5—The *Clermont*, moulded of twice-fired vitreous china, is an attractive wall lavatory. It has *Telsa, Jr.* compression faucets, *Securo* quick draining waste, integral back, overflow, splash lip, and soap depression. Sizes: 24x21 and 20x18 inches.



Shower for Tub or Compartment

C4400-B—This Crane shower is equipped with a 4-inch shower head and two concealed valves, to control the temperature and the force of the water. The shower head has a ball joint enabling the user to change the direction of the stream.



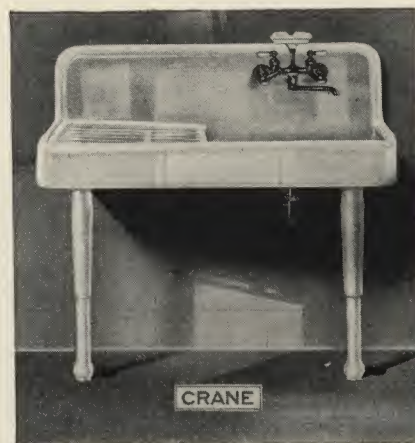
A Crane Bidet

C12651—The *Bidet* is rapidly coming into more general use in America as its valuable contribution to personal cleanliness becomes better understood. It can be used immediately after the closet and for convenience is usually installed next to it. This Crane model, of twice-fired vitreous china, has combination hot and cold water fixture.



Reverse Trap Mauretania

C11010—The twice-fired vitreous china *Mauretania* closet, with tank of the same material, has the well known reverse trap construction. The action is thorough and satisfactory. The mahogany finish birch ring seat and cover contrasts pleasingly with the glistening white of the vitreous china.



Attractive, Economical Sink

C19190-LJ—Cast in a single piece, this Crane porcelain enameled iron sink has adjustable legs to permit installation at any height from 30 to 36 inches from the floor, as desired. It has *Agilis* quick compression double faucet with china soap dish, swinging spout, china lever handles. All exposed metal nicked brass. Sizes: 52x20 and 52x22 inches. Drainboard at left. Model C19190-RJ has drainboard at right.



For further details and literature, write to:

CRANE CO., 836 So. Michigan Ave., Chicago, Ill.

CRANE Plumbing and Heating Materials for Every Purpose

"Quality in all hidden fittings"

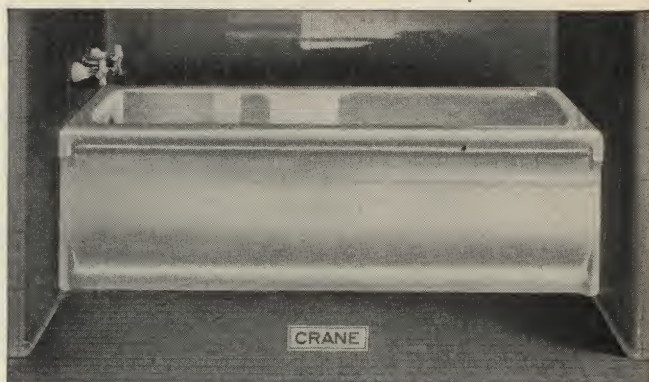
While you are selecting plumbing fixtures, remember that only an indication can here be given of the beauty, comfort and convenience made possible by the thousands of Crane items. Remember that the 71 years of Crane experience; Crane care in manufacture and inspection; the Crane reputation for reliability and fair dealing, cannot be put into words or illustrations.

Remember also that the visible fixture is as helpless as a watch case, minus works, without the valves and fittings hidden behind the wall. Tearing walls out to replace faulty piping is more costly than installing valves and fittings of quality.

The plumbing contractor is an expert in a complicated business. Do not attempt to plan your plumbing without his aid. He will tell you of many Crane items not shown here. His advice will save you time and money.

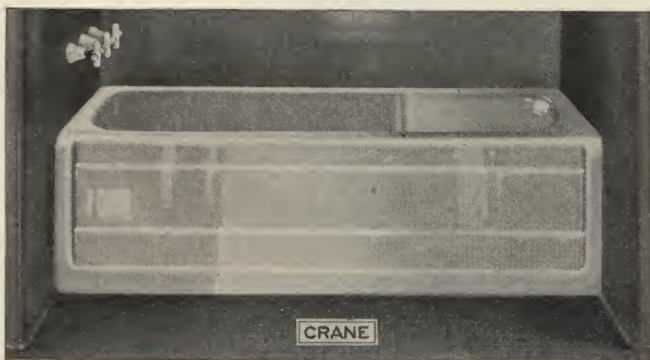
And if color schemes or variations in bathroom design are contemplated, the skilled advice of an architect will prove invaluable.

Crane materials are sold through responsible contractors everywhere. In 155 cities, Crane maintains Exhibit Rooms, branches and sales offices. Visit one of these and see the Crane fixtures. Or a request will bring full information.



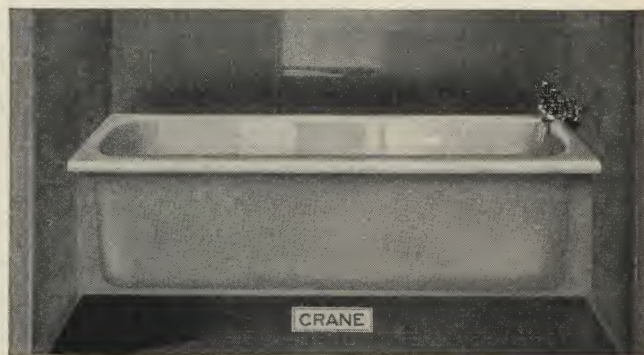
The Linova for recess

C3040-LE2—The light weight white solid porcelain *Linova* bath, to build into recess, with outlet at left end, is here shown. It has concealed compression over-rim spout supply at left end. Four-arm indexed all china handles and china escutcheons. Connected waste and overflow with chain and rubber stopper. Nominal lengths, 5, 5½ and 6 ft. If fixture is wanted on the right end, specify C3040-RE2.



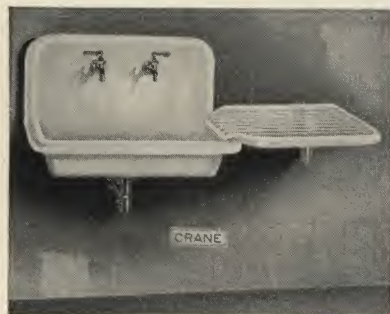
The Corwith for recess

C3308-LE1—This *Corwith* porcelain enamel on iron bath for building-in back and both ends has concealed combination compression top bell supply and standing waste fixtures at left end. Four-arm indexed all china handles, and china escutcheons. Nominal lengths, 4½, 5, 5½ and 6 ft. Utility cupboard with door should be provided for fixture.



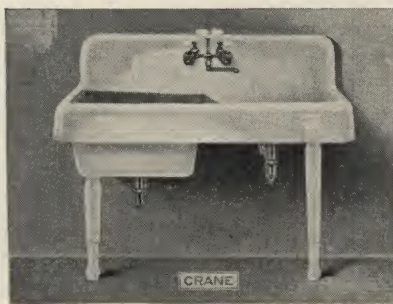
An economical recess bath

C3370-RE4—Porcelain enamel on iron inside and painted outside, the *Verna* is an inexpensive bath for a recess. This model has *Telsa* compression double faucet with shampoo connection; four-ball china indexed handles; ½-inch female flanged union supply connection. 1½-inch connected waste and overflow with chain and rubber stopper. Nominal lengths, 4½, 5, and 5½ feet.



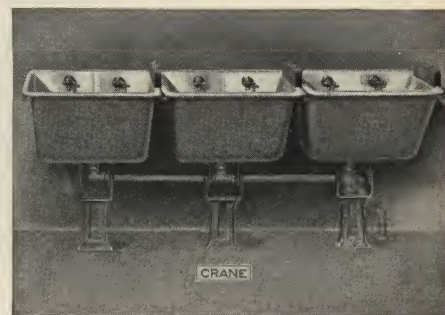
In nine sizes

C19320-R—Here is a handy sink supplied in many sizes to meet any need in a small or large kitchen. It is porcelain enamel on iron and is equipped with Crane *Merit* Fuller faucets. Many people prefer this style for use in a utility sink in the basement. Sizes, 24 x 16, 24 x 18, 30 x 18, 20 x 20, 24 x 20, 30 x 20, 36 x 20, 36 x 22 and 42 x 22 inches.



A useful combination

C21116-L—In small apartments or houses, where there is only a moderate amount of laundry, or where a convenient method for washing lingerie and other dainty articles of apparel is lacking, this porcelain enamel iron combination sink and laundry tray is especially advantageous. An ash drainboard resting over the tray may be shifted to the sink when the tray is used. *Agilis* double faucet, with china soap dish and swinging spout. Size, 50 x 22. Sink 7 in. deep inside, tray 14 in. inside.



Battery of laundry trays

C21242—Cast in a single piece, except for the adjustable standards, these porcelain enamel on iron laundry trays may be placed at the most restful height, 31 to 34 inches from the floor. They are enameled on the inside and painted outside and equipped with *Telsa* laundry tray faucets. Furnished in two sizes, 24 x 22 and 25½ x 25½ inches and in batteries of two and three trays, as desired.



For further details and literature write to:

CRANE CO., 836 So. Michigan Ave., Chicago, Ill.

T/N ONE PIECE WATER CLOSET

Made by

W. A. CASE & SONS MANUFACTURING CO.

220 Delaware Ave., Buffalo, N. Y.

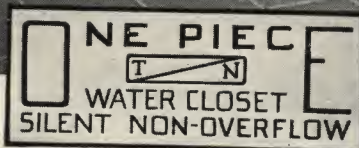


All White

Also Furnished With
Open Front White Seats

No. 55 T/N

Can Be Furnished With
Sani-Black Vulcanized
Seat



PATENTED AND PATENTS PENDING

Quiet Beyond Possible Embarrassment to Owner or Guest

A water closet of the most modern design and construction combining many advantageous features found only in this fixture.

The T/N one-piece Water Closet requires no more room than the ordinary two-piece fixture and less room than most closet combinations. While the bowl is of standard height, the general design of the fixture is such that the T/N is a decidedly unobtrusive fixture in your bathroom.

It is equipped with a high grade seat in either white or mahogany finish as may be required. It is almost noiseless in operation. The non-overflow feature is one of strong appeal to the home builder. The T/N Water Closet meets all demands of the largest and finest installations and the moderate price makes it also available for the modest home. A study of the features this fixture offers and which are here listed will convince you of its desirability.

Non-overflow.

Decidedly quiet in operation.

Attractive design and made of highest quality vitreous china.

A one-piece fixture; no tank attached to wall.

Powerful centrifugal flushing action; thoroughly cleansing.

Fittings of special design and of highest quality and workmanship.

Cover fastened to fixture.

Only two connections; outlet from bowl and supply to tank.

Economy of space.

Easily cleaned and thoroughly sanitary.



For further details and literature, write to:

W. A. CASE & SONS MFG. CO., Buffalo, N. Y.

HOME BUILDERS CATALOG

Speakman Showers and Fixtures

Manufactured by

SPEAKMAN COMPANY
WILMINGTON, DELAWARE

Products

Showers, bath, lavatory and sink fixtures are the principal products of the Speakman Company. All of these are made in our Riverview Works Plant in Wilmington, Delaware. Every appliance or machine which would go to lower cost and maintain quality has been installed in this plant. This allows Speakman products to be sold at a moderate price. Their high quality, however, is maintained at all times.

Castings are always extra heavy, valve seats are renewable, washers are encased—this reduces wear. China handles and escutcheons are heavy and proof against chipping, cracking and crazing.

The Importance of Selecting Good Plumbing Fixtures

Your plumbing fixtures are usually installed in the wall—often behind a tiled wall. Consequently it is important to select well made fixtures that will not give trouble, which might necessitate not only tearing out the wall, but would possibly result in damage to walls and furniture from leaks.

Speakman Tests

The Speakman Company has been identified with the plumbing industry for 59 years. All showers and fixtures leaving our plant are tested under high water pressure. This insures nothing but perfect goods leaving our factory.

Catalogs and Literature

We shall be glad to supply literature on both built-in and exposed types of showers and fixtures. Your plumber can possibly supply this literature as Speakman products are sold and installed by 20,000 plumbers and handled by all good wholesale plumbing supply houses.



K-2600

Mixometer Shower. The Mixometer allows the bather to control the temperature of the water instantly. The Anyforce shower head permits regulation of the water's force. The shower can be installed over many types of Speakman bath fixtures, such as the Deshler, shown in connection with the K-4095 shower.



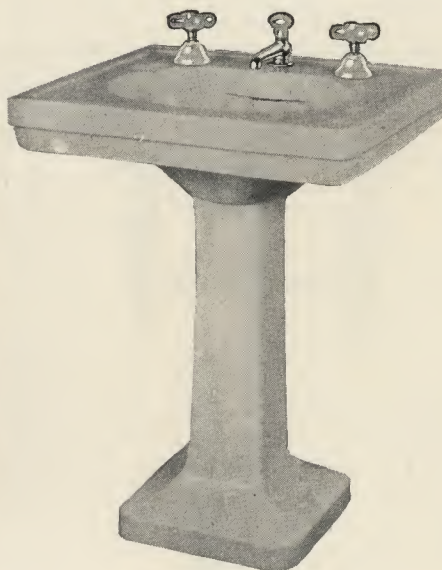
K-4075

Here the shower valves act also as bath valves. The water is diverted from the shower to the bath fixture by the handle in the center. The shower should be used with the Speakman K-4650 Pop-up bath waste or K-4660 Connected Waste and Overflow.



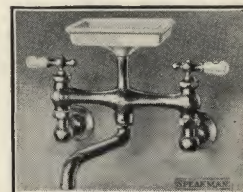
K-4095

Shower and Deshler Bath Fixture installed over a built-in corner tub. The Lavatory Fixture is the Speakman Unit-K-5100.



K-5000

Speakman Unit-Acto Lavatory Fixture installed on lavatory with hooded overflow. Speakman Lavatory Fixtures can be had for practically any type of good lavatory, just as Speakman showers and fixtures can be installed over any type of tub.



K-5500 Speakman Swing-Nozzle Sink Fixture



For further details and literature, write to:

SPEAKMAN COMPANY

Wilmington,
Delaware

Hays Faucets and Built-in Bathroom Equipment

Made by

THE HAYS MANUFACTURING COMPANY
Erie, Pennsylvania

Recent years have seen many important improvements in design and construction of faucets and bathroom equipment. Hays construction and workmanship has always been of such a high standard as to make Hays a leader in the field and our principal effort has been concentrated on improvement in design and in convenience.

Hays faucets, a few of which are illustrated at the right, are by far the most advanced design on the market. Double Sink faucet with Hays Safety Strainer on spout; Lavatory faucet with drinking glass receptacle and soap dish are features of convenience, advanced ideas that are entirely exclusive with Hays faucets.

Besides, Hays faucets are really beautiful. The old, quaint ideas of design have been discarded in favor of modern lines to harmonize with present day architecture.

Made in a plant fifty-nine years young. A wealth of experience constantly made new by application of latest manufacturing methods.

Chromium Plating

Within the past year there was developed a finishing process known as chromium plating. Before this development all faucets including Hays faucets were nickel plated and it is worthy of note in this connection that Hays nickel plating was quite generally accepted as among the very best in the industry.

This was not a happenstance. It was a matter of using the best obtainable materials and the application of thick coatings.

Chromium plating presents just as much of an opportunity to do a good as a poor job.

There is a real difference in different chromium plating jobs.

Notwithstanding the fact that chromium adds something to the cost to make a faucet, it is worth many times its cost. It is a finish that is infinitely more beautiful, positively will not tarnish and actually lasts forever. And of particular interest to housewives is the fact that light rubbing with a cloth keeps the finish always clean and shiny with the original lustre.

We studied and experimented with chromium plating until we learned how to do the best that can be done so that our chromium plating occupies the same high position as our nickel plating has always occupied.

Hays faucets are furnished either chromium or nickel plated and no matter which finish you specify you can be sure you are getting a finish as fine and as lasting so far developed. Truly, "When your faucets are marked Hays you can find none better."



See Your Plumber

There are one or more plumbing stores in your community where you will find wonderfully attractive show rooms. All Hays products are sold through the wholesaler to the local plumber. Be sure your plumbing fixtures carry the name Hays.

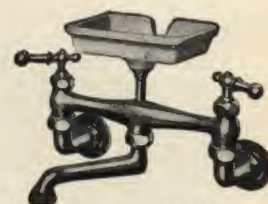
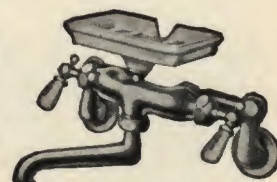


Fig. No. 180 E6

Excel Double Sink Faucet with tap handles



Patented

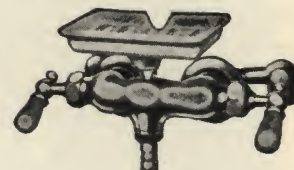
187 E10—With Inlet 8-in. Center
187 E10—"Mova" Double Sink
Faucet, Flanged Female I. P.
187 E9—Same, less Soap Tray.
187 E13—Same as 187 E10 with
Screw Flange, Male I. P.
187 E12—Same as 187 E13,
Soap Tray.



Patent Pending

188 E6

"Mova" Q. C. China Index Lever
Handle and China Glass Holder



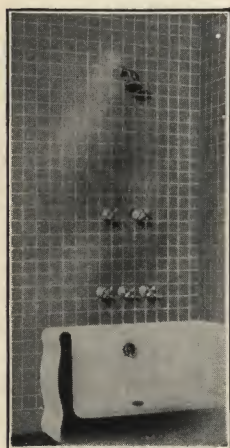
188 E1

"Mova" Q. C., Double Bath Faucet
China Index Lever Handle.
188 E1—With Soap Tray.
188 E2—Same without Soap Tray.



188 E4—Patented

"Mova" Double Laundry Tray
Faucet with Drain Outlet



700

A feature of Haysco built-in equipment is that all seats are renewable and all wearing parts are almost instantly accessible for repair or replacement, reducing very materially future plumbing bills.

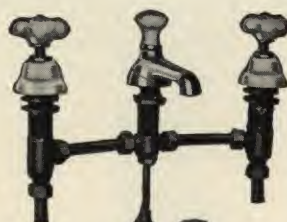


760

Haysco Built-in Bathroom Equipment

A happy arrangement for modern bathrooms is built-in tubs, showers, etc. No little skill and experience is required to design this type of equipment and to this job we brought to bear more than a half century of experience in the field.

Illustrated here is Haysco built-in shower, (Fig. 700) and Haysco built-in equipment for tub only (Fig. 760). These are furnished with brass or china escutcheons. All brass furnished in either nickel or chromium plating. Figs. 600 and 625 illustrate the newest ideas in pop-up drains. Furnished either brass or china escutcheons. Brass furnished in either nickel or chromium plating. Your plumber can give you all detail about other styles of Hays equipment.



625



600

For further details and
literature, write to:

THE HAYS MFG. CO., Erie, Pa.

Penberthy Automatic Cellar Drainer

Made by
PENBERTHY INJECTOR COMPANY

1242 HOLDEN AVE.

Established 1886

DETROIT, MICH.

Products

On this page is illustrated and described but one of many products made by this company—the Penberthy Automatic Cellar Drainer—a device that for years has proved its usefulness and efficiency when installed in the basement of buildings, in removing seepage, flood or back water from points below the natural drainage level of sewer.



Other Penberthy products are: Automatic and Auto-Positive Injectors, "XL-96," Swimming Pool Heaters, "XL-96" Ejector, Water Gages, Water Heaters, Oil and Grease Cups, Air Cocks, Priming Cups, Carburetors, Re-atomizers, Oil Burners, etc.

Advantages

The Penberthy Automatic Cellar Drainer operates by city water pressure and is compactly constructed to occupy the least possible space. It is entirely automatic and requires no attention after installation.

All working parts are above water—no slime or corrosion to interfere with operation.

A foot valve in the strainer seals suction pipe when the drainer stops working, holding all water in the pipe, so that it is always primed ready to start instantly. Also prevents flooding of cellars if for any reason the water pressure is insufficient to operate the ejector.

Operating valve opens and closes instantly by action of water pressure.

No leather washers are used as leather dries and warps, causing serious leaks.

With exception of copper float, it is made entirely of brass.

The combination pressure water strainer and union furnished with every drainer (See letter A, cut No. 381) obviates the necessity of purchasing a union and makes it possible to clean strainer, thus preventing the drainer from becoming clogged with dirt and refuse.

Installation and Operation

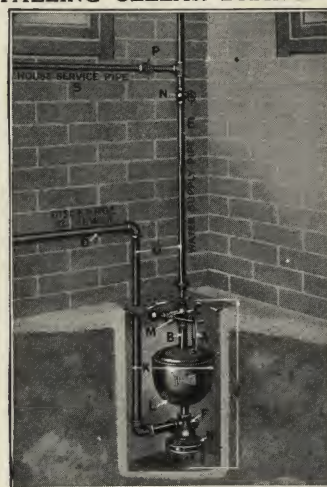
The sump or pit may be constructed of cement, brick, sewer crock, iron pipe, or any other suitable material. The compactness of the drainer requires only a very small sump, although it is good to have it a little larger than is actually necessary, especially in depth to allow dirt to settle below the strainer. The pit should be placed so that all surplus water will drain to it. A cover that is *not* air tight should be made in two sections to fit around pipes (D) and (E) (see cut 382). On next column are shown all necessary dimensions, the letters E, D, K, etc., at top of table refers to cut No. 382.

The drainer valve (C) is normally in a closed position. As the water rises in the sump it lifts the float (L) until sufficient water has accumulated to cause the buoyancy of the float to open the valve (C) thus starting the ejector (F). The ejector pumps rapidly until the level of water in the sump is lowered to a point where the float (L) descending with the water, automatically closes the valve (C). The cellar Drainer now remains inactive, using no pressure water until the sump has again filled with seepage water. The complete Cellar Drainer is below the floor level yet all parts are easily and instantly accessible without disconnecting pipes or removing drainer. Working parts are located at the top within easy reach.

METHOD OF INSTALLING CELLAR DRAINER



Cut No. 381
Automatic
Cellar Drainer
Model R



Cut No. 382

| | E | D | K | J | G | Minimum Size Sump | |
|----------|--------------------------------------|-------------------------|---------------------------------|------------------------------|---|----------------------|----------------------|
| Size No. | City Pressure or Steam Line 1 P Size | Discharge Line 1 P Size | Extreme Diam. of Drainer Inches | Height of Drainer Valve Open | Approx. Centers of Cut-outs in Pit cover Inches | Minimum Diam. Inches | Minimum Depth Inches |
| 1 | ½ | 1 | 10⅝ | 21½ | 6 | 12 | 24 |
| 2 | ¾ | 1 ¼ | 12⅞ | 21½ | 7½ | 16 | 24 |

List Price—Model "R"

| Size No. Model "R"..... | 1 | 2 | 3 | 4 | 5 |
|-------------------------|---------|---------|---|---|---|
| List Price..... | \$25.00 | \$40.00 | | | |

Prices for Larger Sizes Quoted on Request

Table of Capacities at Different Pressures and Elevations, Pipe Sizes, etc., Model "R"

| Size and Model | Pipe Sizes | | Working Head in Ft. | Maximum Net Capacities from Sump in Gallons Per Hour at 10 to 100 Pounds Water Pressure | | | | | | | |
|----------------|------------|-----------|---------------------|---|-----|-----|-----|-----|-----|------|--------|
| | Supply | Discharge | | 10 | 15 | 20 | 25 | 30 | 40 | 60 | 80 100 |
| No. 1 Model R | ½" | 1" | 3 | 80 | 210 | 300 | 340 | 400 | 510 | 700 | 720 |
| | | | 6 | | 90 | 140 | 240 | 300 | 390 | 570 | 670 |
| | | | 9 | | | 90 | 150 | 210 | 330 | 480 | 620 |
| | | | 12 | | | | 100 | 150 | 220 | 390 | 550 |
| | | | 15 | | | | | 90 | 190 | 300 | 450 |
| No. 2 Model R | ¾" | 1 ¼" | 18 | | | | | 120 | 250 | 320 | 550 |
| | | | 3 | 190 | 390 | 550 | 620 | 750 | 910 | 1180 | 1240 |
| | | | 6 | | 210 | 340 | 420 | 500 | 750 | 1020 | 1140 |
| | | | 9 | | | 210 | 300 | 380 | 540 | 900 | 1090 |
| | | | 12 | | | | 210 | 300 | 420 | 780 | 1020 |
| | | | 15 | | | | | 210 | 370 | 570 | 940 |
| | | | 18 | | | | | | 300 | 510 | 850 |

Unless otherwise specified, the model "R" drainer (see cut No. 381) is supplied and used for all conditions as printed in bold face type as shown in the table of capacities. (See table above)

For conditions below bold face type we furnish a low pressure drainer. The model "R" drainer requires 5-pound water pressure or more for each one foot of elevation, while the low pressure drainer will work on 2-pound to 4-pound per foot of elevation, which we can supply from factory

| Working Head in Feet | Approximate Gals. or Fractional Gals. of Pressure Water Required to Pump One Gal. from Sump with a Model "R" Drainer | | | | | | | |
|----------------------|--|---------|---------|---------|---------|---------|---------|----------|
| | 10 lbs. | 15 lbs. | 20 lbs. | 30 lbs. | 40 lbs. | 60 lbs. | 80 lbs. | 100 lbs. |
| 3 | .80 | .50 | .40 | .38 | .35 | .30 | .30 | .35 |
| 6 | | .90 | .75 | .50 | .42 | .38 | .38 | .40 |
| 9 | | | 1 0 | .65 | .5 | .45 | .40 | .41 |
| 12 | | | | .90 | .65 | .52 | .45 | .42 |
| 15 | | | | 1 2 | .85 | .60 | .50 | .43 |
| 18 | | | | | 1 0 | .70 | .55 | .45 |
| | For conditions below bold face type we can furnish a special Drainer | | | | | | | |



For further details and literature, write to:

PENBERTHY INJECTOR CO.,

DETROIT, MICH.
Established 1886

ALBERENE STONE LAUNDRY and KITCHEN FIXTURES

ALBERENE STONE COMPANY

Main Office
153 W. 23rd Street, New York

Quarries and Mills
Schuyler, Va.

Boston, Mass.

Philadelphia, Pa.

Chicago, Ill.

BRANCHES

Pittsburgh, Pa.

Cleveland, Ohio

Richmond, Va.

Newark, N. J.

What Alberene Stone Is

Alberene Stone is a natural quarried stone—not a composition or an imitation—with the time-proof permanence of the hills from which it comes. It is a pleasing light gray in color, blending harmoniously with any surroundings. It is quarried in large blocks, sawed into slabs, rubbed to a satin-like finish, and fabricated and assembled in many forms for many purposes. It is hard and dense—it is non-absorbent to moisture, non-staining, resistant to all chemical action—it is non-chipping, non-flaking, non-scaling.



Trade Mark

sizes in each of these 18 styles covers every requirement of taste or convenience. Options in most of the standard styles afford a still greater range of choice. Only the standard styles are here illustrated. The dimensions given are the outside measurements, in all cases. A complete Style Book giving illustrations, sizes and options in all styles, will be sent on request.

Alberene Stone Laundry Trays and Sinks

These fixtures are made up from selected slabs of Alberene Stone, with tongue-and-groove joints held by concealed bolts and water-proof cement, in units having the solidity and permanence of one-piece construction. There are absolutely no cracks or crevices in which dirt or germs might lodge. Being absolutely non-absorbent and having a smooth surface easily kept clean, they are always dry, odorless and absolutely sanitary. Simplicity of line and correct proportions make them attractive and equally adapted to bungalow, apartment or mansion.

Fittings, Heights, Etc.

Alberene Stone Trays and Sinks can be had with several different styles of legs or standards. Standard heights 16" and 24"; special adjustable legs can be furnished if specified. Faucets and fittings are not supplied with the tubs, but any of the standard styles in these can be provided by the installing plumber.

Sizes and Styles

There are 7 standard styles in Alberene Stone Laundry Trays—6 standard styles in sinks—and 5 standard styles in combination Tray and Sink Fixtures. The range of

Distribution and Delivery

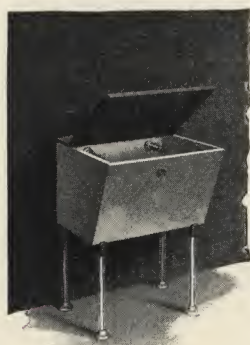
Plumbing jobbers everywhere carry Alberene Stone Trays and Sinks in stock, in the styles and sizes for which the greatest demand exists. These jobber stocks are supplemented by larger and more diversified stocks at factory and branch warehouses. Prompt delivery can usually be made in the most popular sizes and styles.

Responsibility

Alberene Stone has been quarried and fabricated for over 40 years. The company is the oldest and largest producer of these natural stone specialties in the world, and owns the only known deposit of stone of the physical and chemical and structural characteristics of Alberene Stone. Millions of Alberene Stone Trays and Sinks are in use today. The trademark placed on every genuine Alberene Stone fixture is a guarantee of perfect material and workmanship.

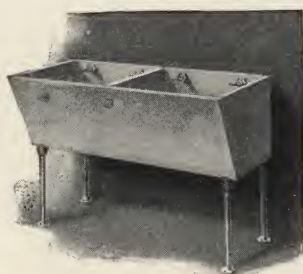
Other Alberene Stone Products

The unique physical properties of Alberene Stone give it distinct value in the home for range hearths and backs, fire-place hearths and linings, radiator slabs and drips, garden furniture, garden flagging. In schools, hospitals and business buildings it is widely used for stair treads and landings. While as a material for laboratory equipment in schools, colleges, hospitals, etc., Alberene Stone is generally recognized as the material without a peer.



STYLE K101

Single-compartment laundry tray without high back; here shown with cover but regularly furnished without cover; size 24"x24"x16" deep.



STYLE K104

Two-compartment laundry tray, without high back; two sizes, 42"x24" and 48"x24", 16" deep.



STYLE K108

Three-compartment laundry tray, without high back; size 72"x24"x16" deep.

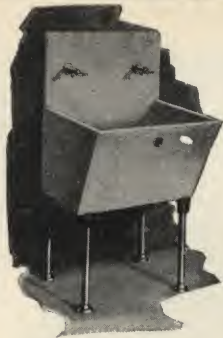


For further details and literature, write to:

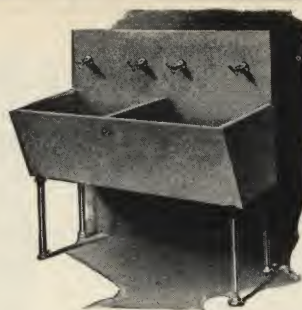
ALBERENE STONE COMPANY

153 W. 23rd St., New York
or nearest branch

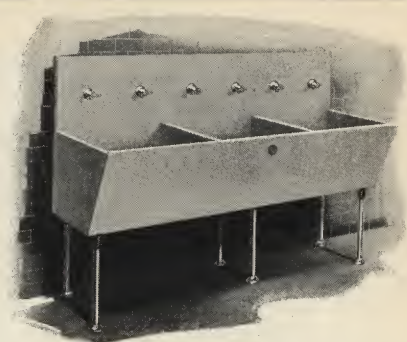
ALBERENE STONE LAUNDRY AND KITCHEN FIXTURES—(Continued)



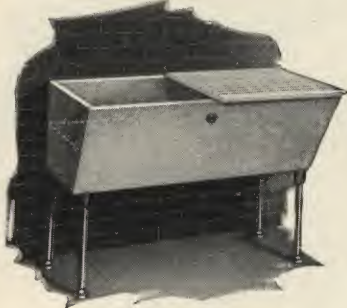
STYLE K102
Single-compartment laundry tray with 12" high back; size 24"x24"x16" deep.



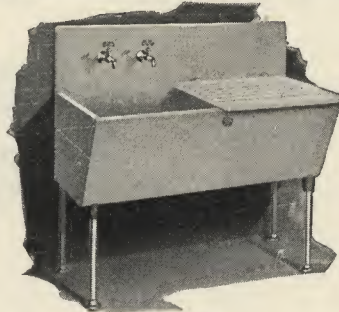
STYLE K105
Two-compartment laundry tray with 12" high back; two sizes, 42"x24" and 48"x24", 16" deep.



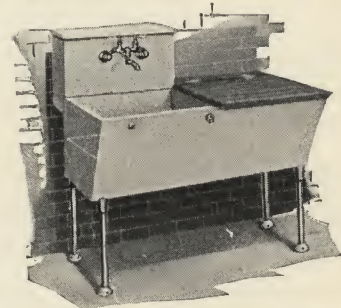
STYLE K109
Three-compartment laundry tray with 12" high back; size 72"x24"x16" deep.



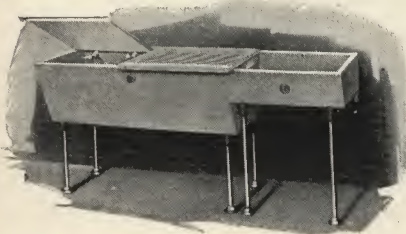
STYLE K134B
Solid combination tray and sink, without high back; three sizes, 48", 54" and 60", 24" wide; right or left hand as ordered.



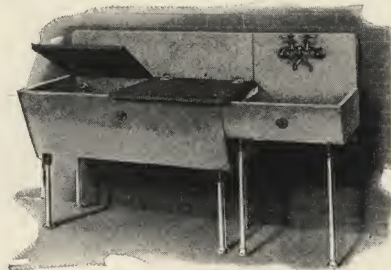
STYLE K135B
Solid combination tray and sink, with 12" high back; three sizes, 48", 54" and 60", 24" wide; right or left hand as ordered.



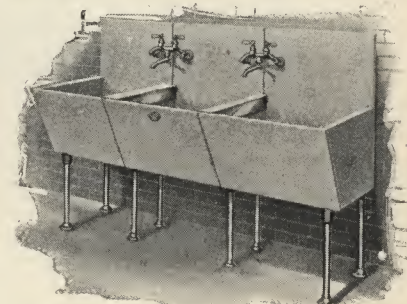
STYLE K136B
Solid combination tray and sink, with 12" high sink back only, shelf and return ends; three sizes, 48", 54" and 60", 24" wide; right or left hand as ordered.



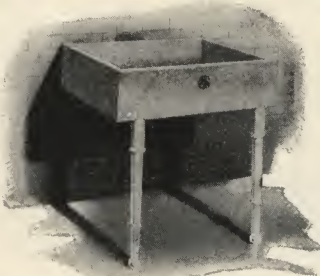
STYLE K131B
Combination two-compartment tray and sink, without high back; right or left hand as ordered; three sizes, 72", 78" and 84"x24".



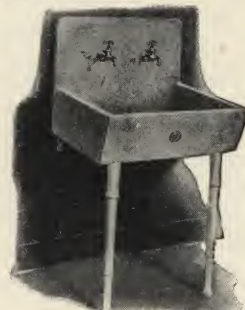
STYLE K132B
Combination two-compartment tray and sink with 12" high back; right or left hand as ordered; three sizes, 72", 78" and 84"x24".



STYLE K116
Combination three single laundry trays with 12" high back; size of units 24"x24"x16" deep; any desired number in combination.



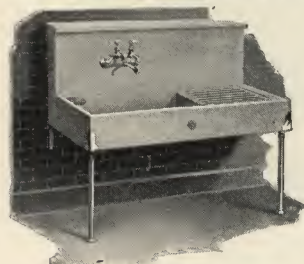
STYLE K146
Kitchen sink, straight front, no high back; five sizes, 24" to 48", 24" wide, 8" deep; furnished in same sizes with 12" high back, as Style K147.



STYLE K147B
Kitchen sink, bevel front, 12" high back, seven sizes, furnished also without high back, as Style K146B.



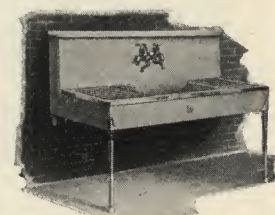
STYLE K151
Kitchen sink with stone drainboard and 12" plain high back; right or left hand as ordered; nine sizes.



STYLE K150
Kitchen sink with stone drainboard, and 12" high back with shelf and return ends; right or left hand as ordered, nine sizes.



STYLE K156
Kitchen sink with double stone drainboard and 12" plain high back; nine sizes.



STYLE K160
Kitchen sink with double stone drainboard and 12" high back with shelf and return ends; nine sizes.



For further details and literature, write to:

ALBERENE STONE COMPANY

153 W. 23rd St., New York or nearest branch

BRUNSWICK TOILET SEATS

WHALE-BONE-ITE
The World's Finest
Toilet Seat

Made by
THE BRUNSWICK-BALKE-COLLENDER CO.
623 South Wabash Ave., Chicago
BRANCH OFFICES IN ALL PRINCIPAL CITIES

THE WHITE SEAT
Best Popular Priced
Seat Made

The Whale-bone-ite Seat

This company (well known as makers of world-famous billiard tables) also manufactures the finest Toilet Seat made—the WHALE-BONE-ITE.

This is the Toilet Seat *de luxe*—a molded seat without a seam, scientifically designed for comfort; absolutely sanitary, and with an everlasting polish that time will not dim.

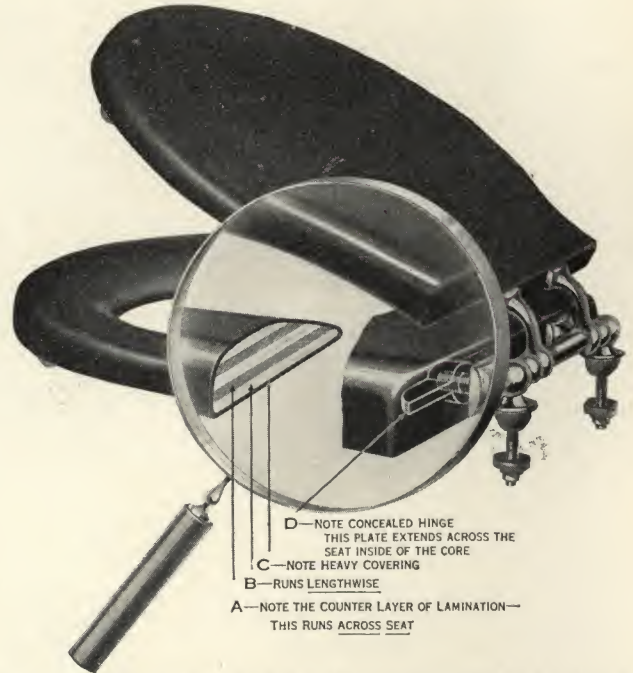
The rich ebony, or mahogany, finish of this seat makes it the preferred seat for bathrooms in the modern style, in which color effects are taking the place of the plain white-tiled bathrooms of former days.

The White Seat

Similar to the Whale-bone-ite in method of construction, but cheaper in price, is The White Seat, for those who wish an all-white bathroom. This is unquestionably the best popular-priced Toilet Seat made, and is sold at a price low enough to enable you to use it in any home you build. The Whale-bone-ite Seat costs somewhat more and is recommended for the finer types of residences. Catalogs and price-lists on both types of seats will be mailed you on request.

A Seat Without a Seam

The ordinary toilet seat is made of several pieces (usually of wood), doweled and glued together. Such seats will inevitably open at the joints in time, presenting an unsightly appearance and making it impossible to keep the seat hygienically clean. Moreover, the enamel, or varnish, finish soon shows signs of wear, particularly if frequently washed, as toilet seats should be. Wood, a porous material, is not suitable for toilet seats, which should be absolutely non-absorbent. Whale-bone-ite and White Seats are free from all these faults. Both are made of dense, non-absorbent materials. The Whale-bone-ite Seat is molded under heavy hydraulic pressure into a single piece without seams or joints of any kind. The finish is not a thin skin of enamel, varnish or celluloid,



but is the natural finish of the material of which the seat is made, highly polished, and proof against discoloration, crazing or cracking.

The Sanitary Non-Fouling Hinge

Note that no holes are drilled in the surface of the seat. All hinges for both seat and cover are attached at the rear edge, preserving the surfaces of seat and cover unbroken, thus preventing lodgment of dust and moisture on any part of surface of seat.

Made in Many Styles

Whale-bone-ite and White Seats are made in many styles, only a few of which are illustrated on these pages.

Write for complete catalog, or consult your plumbing contractor, who is familiar with the merits of these superlatively good toilet seats.



WHALE-BONE-ITE SEAT

No. 16-91 Saddle Seat With Cover No. 16-9 Saddle Seat Without Cover



WHALE-BONE-ITE SEAT

No. 24-91 Seat With Cover No. 24-9 Seat With Cover

PRICES ON WHALE-BONE-ITE SEATS ON APPLICATION

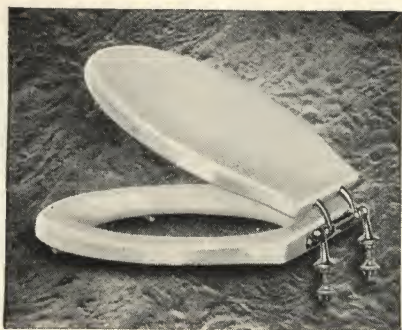


For further details and
literature, write to:

THE BRUNSWICK-BALKE-COLLENDER CO.

Chicago,
Illinois

BRUNSWICK TOILET SEATS (Cont.)



No. 524-61

BRUNSWICK laminated, white, closed front seat and cover with No. 61 non-fouling, concealed, N. P. bar hinge.

List Price
No. 524-61 Seat and Cover.....\$10.55



No. 516-61

BRUNSWICK laminated, white, full saddle, closed front seat and cover with No. 61 non-fouling, concealed, N. P. bar hinge.

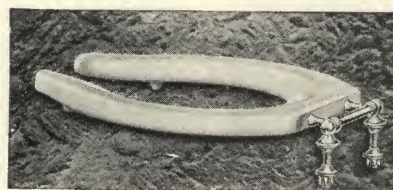
List Price
No. 516-61 Seat and Cover.....\$12.56



No. 523-61

BRUNSWICK laminated, white, open front seat and cover with No. 61 non-fouling concealed, N. P. heavy bar hinge.

List Price
No. 523-61 Seat and Cover.....\$12.20

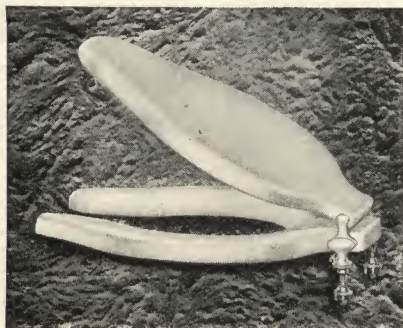


No. 521-6

BRUNSWICK laminated, white, open front seat for extended lip bowls with No. 6 non-fouling, concealed, N. P. bar hinge.

No. 521-66 Same as above with No. 66 check hinge.

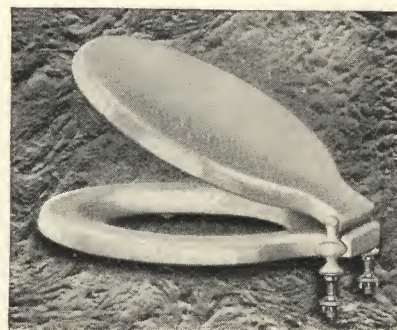
List Price
No. 521-6 Seat—no Cover\$11.45
No. 521-66 Seat—no Cover 11.45



No. 621-71

BRUNSWICK laminated, HYGIENIC, all-white seat and cover with No. 71 integral white hinge.

List Price
No. 621-71 Seat and Cover.....\$17.00



No. 624-71

BRUNSWICK laminated, HYGIENIC, all-white seat and cover with No. 71 integral white hinge.

List Price
No. 624-71 Seat and Cover.....\$12.78



For further details and literature, write to:

THE BRUNSWICK-BALKE-COLLENDER CO.

CHICAGO
ILLINOIS

CHURCH SANI-WHITE TOILET SEATS

Manufactured by
C. F. CHURCH MFG. CO.
Holyoke, Mass.



No. 142 CHURCH
Sani-White Sheet Covered Seat and Cover, with white cushion bar bumpers. All-White (including hinges) which eliminates exposed metal.



No. 186 CHURCH
Sani-White Sheet Covered Full Saddle Open Front Seat and Cover, for extended lip bowl, with white cushion bar bumpers. All-White (including hinges) which eliminates exposed metal.



No. 170 CHURCH
Sani-White Sheet Covered Open Front Full Saddle Seat, no Cover, for regular bowl, with white cushion bar bumpers. All-White (including hinges) which eliminates exposed metal.



No. 162 CHURCH
Sani-White Sheet Covered Open Front Full Saddle Seat and Cover, for regular bowl, with white cushion bar bumpers. All-White (including hinges) which eliminates exposed metal.

Above everything else in the bathroom, THE TOILET SEAT reflects your standards of cleanliness

The fixtures in your bathroom may be completely modern and sanitary—except for one thing. But if the toilet seat is made of wood . . . made with joints that sooner or later will become unsightly, unsanitary cracks . . . covered with paint that in a short time will wear off—your bathroom is not as modern as it should be!

A cracked, poorly constructed toilet seat is a needless reflection on your standards of cleanliness. Every guest who goes into your bathroom knows this—knows that a really sanitary toilet seat costs only a few dollars.

The Church Sani-White Seat is guaranteed for five years. It can be attached in ten minutes to any standard bowl, with an ordinary pair of pliers. Its polished, immaculately white covering is *not a paint or enamel*. It is a solid covering, it has no cracks in which germs and dirt can lodge. It will not chip, wear off nor turn color. . . .

If you plan to build, make certain—when the specifications for your home are first made—that the bathroom is equipped with a modern toilet seat! Avoid from the beginning the risk of being embarrassed by a cheaply or improperly constructed seat! Ask your architect or contractor about Church Sani-White Seats. Or write to us direct for booklet, prices and complete information. Address C. F. Church Manufacturing Co., Holyoke, Mass.



No. 425 CHURCH
Sani-White Sheet Covered Seat and Cover, with No. 68 nickel plated cast brass bar hinge, and white cushion bar bumpers.



No. 220 CHURCH
Sani-White Sheet Covered Seat and Cover, with No. 32 heavy nickel plated cast brass bar hinge, and white cushion bar bumpers. No metal showing on under side of seat or cover.

Church  **Seats**
sani-white
FOR SALE BY ALL PLUMBING STORES



For further details and literature, write to:

C. F. CHURCH MFG. CO.

HOLYOKE,
MASS.

CHURCH SANI-BLACK TOILET SEATS

Manufactured by
C. F. CHURCH MFG. CO.
Holyoke, Mass.



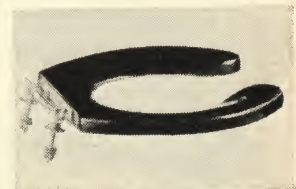
No. 19-C CHURCH
Sani-Black Open Front Full Saddle Seat, no Cover, with sanitary Cutout back for extended lip bowls. Molded black check hinges. No exposed metal.



No. 15-C CHURCH
Sani-Black Full Saddle Seat, no Cover, for regular bowl, with all-black molded check hinges. No exposed metal.



No. 5300 CHURCH
Sani-Black Open Front and Open Back Full Saddle Seat, no Cover, for extended lip bowl with No. 5300 extra heavy all-black molded concealed check hinge. No exposed metal. Cushion bar bumpers. Standard dimensions and fits all extended lip bowls.



No. 57 CHURCH
Sani-Black Open Front, Semi-Extended Lip Seat, no Cover, with No. 57 extra heavy nickel plated cast brass check hinge. Cushion bar bumpers. The Semi-Extended Lip seat is longer than the open front seat for regular bowl, but does not attain the full length of the extended lip seat. Can be used on either a regular or extended lip bowl. Measures, overall, 17 in.

**This toilet seat WILL NEVER WEAR OUT—it is
guaranteed for the building's lifetime**



No. 20 CHURCH
Sani-Black Open Front Full Saddle Seat and Cover, with all-black molded hinges. No exposed metal anywhere on either seat or cover. Cushion bar bumpers. Can be used on either a regular or extended lip bowl.



No. 14 CHURCH
Sani-Black Full Saddle Seat and Cover, for regular bowl, with all-black molded hinges. No exposed metal anywhere on either seat or cover. Cushion bar bumpers.

When a Church Sani-Black Seat is installed, it becomes a permanent part of the building. Its original cost is the only cost that need ever be considered.

Church Sani-Black Seats are especially designed for hotels, hospitals, schools and office buildings—wherever constant usage is to be expected. Installed in public buildings throughout the country, they are giving complete satisfaction year after year. They are generally specified by architects. No other toilet seat made is guaranteed so unconditionally.

The core of the Sani-Black Seat is formed by cross-grained layers of wood and rubber, vulcanized into a compact, solidly welded unit that will never warp nor crack. The outside covering is composed of a hard composition, vulcanized to the core under heat pressure. It completely seals the core. It has no joints—no breaks of any kind in its lustrous, jet-black surface. It cannot scratch, chip nor wear off.

This same hard composition covers the hinges on the all-black seats. They are completely sanitary. They cannot tarnish, rust nor become corroded. And they are permanently held in place by screws, which are tapped through solid steel bars—molded into the seat core.

We shall be glad to send to architects and contractors an illustrated, 100-page catalogue describing our full line of Sani-White and Sani-Black Seats. We will send, at the same time, an actual cross-section of the Sani-Black Seat, so that you can examine for yourself its indestructible construction. C. F. Church Manufacturing Co., Holyoke, Mass.

Church
sani-black **Seats**

LOOK FOR THIS NAME ON UNDER-SIDE OF SEAT
FOR SALE AT ALL PLUMBING STORES



For further details and
literature, write to:

C. F. CHURCH MFG. CO.

**HOLYOKE,
MASS.**

HEAP TOILET SEATS

Manufactured by
WILLIAM HEAP AND SONS
Grand Haven, Michigan



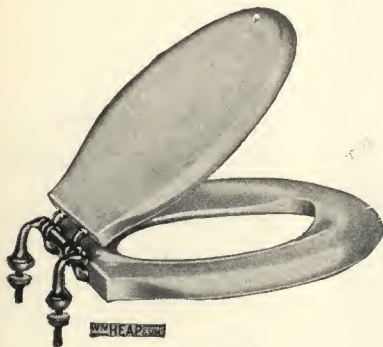
This Trade Mark
Label on Under-
Side of Seat Is
Your Protection.

The appearance of Heap seats is "classy," due to superior design. The finish, whether in white or in color, is durable and beautiful. A Heap seat adds much to the attractiveness of your bathroom and as Heap seats come in a wide range of prices to suit every pocket book there is no reason why any bathroom should be without this highest type seat the market affords, manufactured by the oldest toilet seat manufacturers in the world.



Every Seat Is
Guaranteed when
Marked with This
Label.

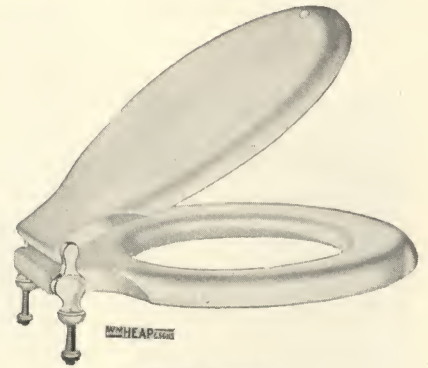
FOR SALE AT ALL GOOD PLUMBING SHOPS



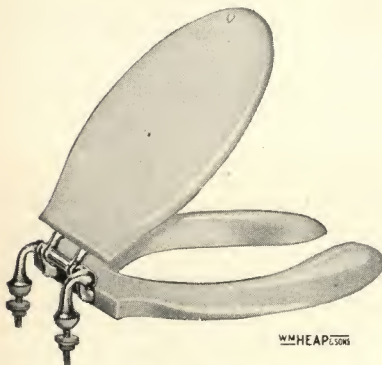
WHITE SEAT
No. 800X45—Seat and Cover
For Regular Bowl



VARNISH FINISH SEAT
No. 900X90—Seat and Cover
For Regular Bowl



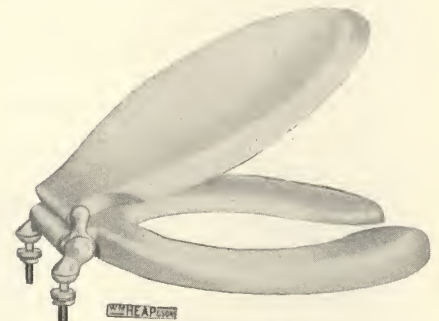
WHITE SEAT
No. 770X30—Seat and Cover
For Regular Bowl



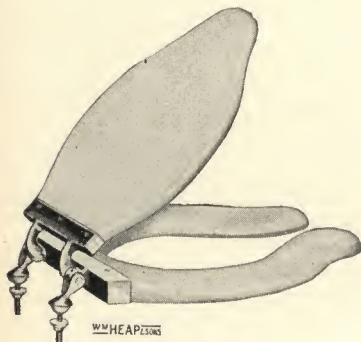
WHITE SEAT
No. 948X45—Seat and Cover
For Regular Bowl



VARNISH FINISH SEAT
No. 700X58—Seat and Cover
For Regular Bowl



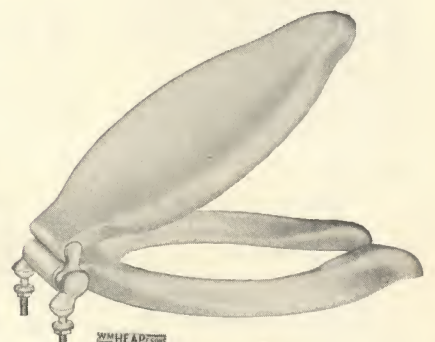
WHITE SEAT
No. 970X30—Seat and Cover
For Regular Bowl



WHITE SEAT
No. 953X56 Seat and Cover
For Extended Lip Bowl



VARNISH FINISH SEAT
No. 500X50 Seat and Cover
For Regular Bowl



WHITE SEAT
No. 980X30 Seat and Cover
For Extended Lip Bowl



For further details and
literature, write to:

WILLIAM HEAP AND SONS, Dept. N-7

Grand Haven
Mich.

MAID~EN~WHITE

PORCELAIN Bath Room Fixtures

Made By
THE AUTOYRE COMPANY
(Autowire)
OAKVILLE, CONN.



Products

Maid-En-White Porcelain Semi-Inset Fixtures;
Maid-En-White Porcelain Attached Fixtures;
Maid-En-White White Enamel Fixtures;
Rex Nickel Fixtures; items as follows:

| | |
|---------------------------|--------------------|
| Wall Soap Dishes | Single Post Toilet |
| Tumbler Holders | Paper Holders |
| Combination Tumbler and | Wall Shelves |
| Soap Holders | Tub Soap Dish with |
| Combination Tumbler and | Hanger |
| Toothbrush Holders | Robe Hooks |
| Towel Bars | Coat and Hat Hooks |
| Towel Basket | Razor Strop Hooks |
| Towel Shelf | Bath Tub Seat |
| Roll Toilet Paper Holders | Hanging Soap Dish |
| Flat Toilet Paper Holders | etc., etc. |

A Complete Line

As far as we are able to learn, ours is the only factory making a complete line of bathroom fixtures in Porcelain, Enamel and Nickel. You can equip your bathroom complete with all necessary fixtures from any one of our lines.

Our Guarantee

Maid-En-White Porcelain Bath Room Fixtures are fully guaranteed not to chip, crack, peel, break or discolor in use. However, if, in spite of our rigid inspection and extreme care in manufacturing, any Maid-En-White Porcelain Fixture shows any of the above defects through ordinary use, we will gladly replace it free of charge.

Construction

Both the Maid-En-White Porcelain Semi-Inset and the Attached Bath Room Fixtures are made of a special process cast iron covered with a snow-white genuine porcelain that is fused on and into the iron

under intense heat in exactly the same manner as bath tubs and kitchen sinks are made. This gives a most beautiful lustrous, glass-hard surface that is easily cleaned and an extra strong, durable fixture.

All Semi-Inset Fixtures are easily and quickly set and do away with rubbing of joints with tile because of their overlapping flanges that add to their attractiveness. The color matches practically all tile.

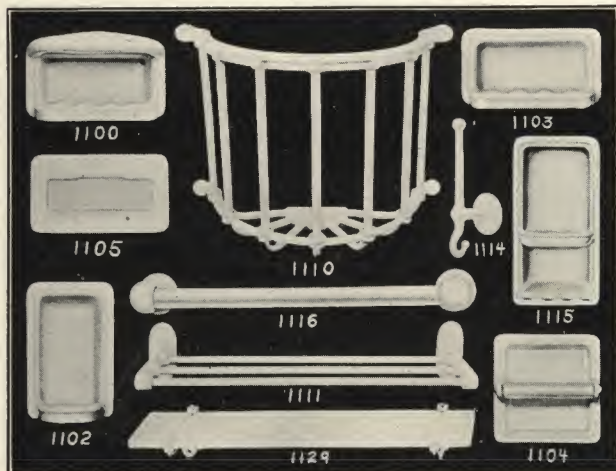
Our Attached Fixtures are provided with heavily nickeled, highly polished screws of extra long length which hold the fixture securely.

Specifications

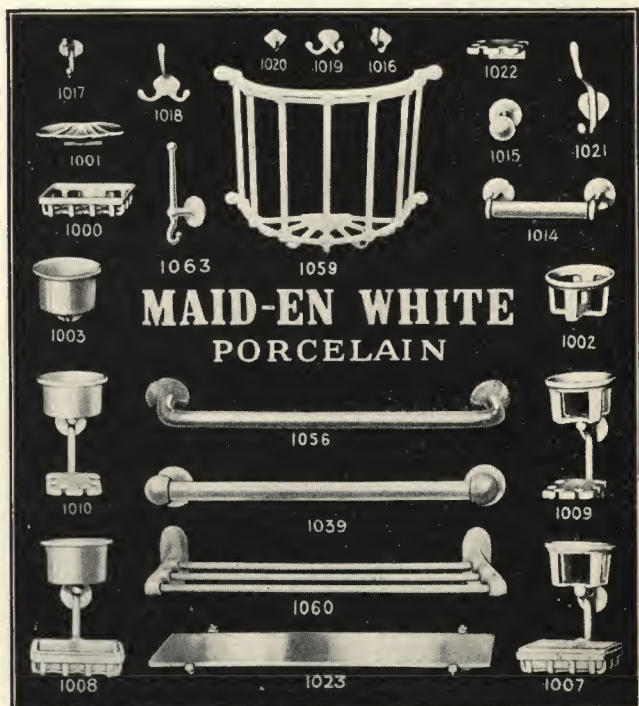
In specifying Maid-En-White Fixtures, we suggest that attached fixtures be listed in plumbing specifications and semi-inset fixtures be specified in the tile and marble specifications.

Maid-En-White Porcelain Bath Room Fixtures are an outstanding value at any price but are priced low enough to be used in the most modest home and are luxurious enough for the most exclusive residence. They may be secured in practically any locality from your department store, hardware store or your plumber. If you cannot find them, write us and we will see that you are supplied promptly.

Semi-Inset Porcelain



Attached Porcelain



For further details and
literature, write to:

THE AUTOYRE COMPANY, Oakville, Conn.

Snow White Steel Medicine Cabinets and Lavatory Mirrors

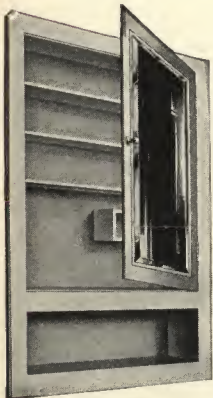
Manufactured by

HESS WARMING & VENTILATING CO.

1207-1229 S. Western Ave., Chicago, Ill.



Style E—To Recess



Style E—Open, to Recess

Hess Medicine Cabinets are made of smooth, soft steel, with corners welded and made seamless. They are finished in snow white Duco Lacquer. This finish is guaranteed not to blister, crack or peel (external violence excepted).

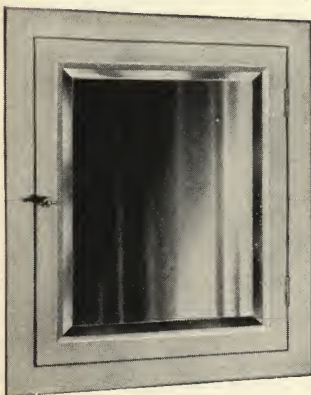
The mirrors are made of selected, high grade, polished plate glass, and are supplied with either plain or beveled edges. The doors close flush with the front in a rabbeted opening. Hinges and turn catch are of solid brass, heavily nickel-plated and highly polished. The shelves are furnished either of enameled steel or polished plate glass, as ordered. They are easily adjustable, and are supported by round rods which do not accumulate dust.

The recessed cabinets (Styles E and F) require a depth of 4 1/4 inches from face of finished wall to back of recess, and extend 1 1/4 inches from the wall. Shallower boxes will be made, when required. Nos. 19E and 29F will fit between studding when placed 16 inches from centers. Larger sizes require cutting of one stud. Cabinets are regularly furnished with turn catch handle, but a Yale cylinder, flat key lock and two keys will be furnished at an additional charge, when ordered. All cabinets are right hand unless ordered left hand.

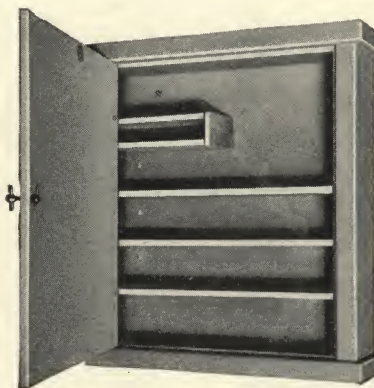
Hess Steel Medicine Cabinets

| Style No. | DIMENSIONS | | | Ship. wgt. lbs. | List Prices with Steel Shelves | | Extra for Plate Glass Shelves |
|--|------------|--------------------|--------|-----------------------|-----------------------------------|-------------------|---|
| | Outside | Opening in Wall | Mirror | | Plain Mirror | Beveled Mirror | |
| Style E—Recessed Cabinet with open pocket shelf below | | | | | | | |
| *E-19..... | 16 x27½ | 14x25 | 10x14 | 42 | \$17.75 | \$18.60 | \$0.25 |
| *E-19½..... | 18 x29½ | 16x27 | 12x16 | 50 | 19.50 | 20.40 | .50 |
| †E-20..... | 21½x33½ | 19x30 | 14x18 | 60 | 22.00 | 23.00 | .75 |
| E-21..... | 23½x35½ | 21x32 | 16x20 | 70 | 26.50 | 27.75 | 1.00 |
| E-22..... | 25½x37½ | 23x34 | 18x22 | 75 | 33.00 | 35.00 | 3.50 |
| E-23..... | 27½x39½ | 25x36 | 20x24 | 80 | 38.00 | 41.50 | 4.00 |
| *No. E-19 and E-19½ are fitted with long shelves only. Glass shelves include glass for open shelf below. | | | | | | | |
| Style F—Recessed Cabinet | | | | | | | |
| *F-29..... | 16 x20 | 14x17 | 10x14 | 35 | \$16.25 | \$17.10 | \$0.25 |
| *F-29½..... | 18 x22 | 16x19 | 12x16 | 43 | 17.50 | 18.35 | .50 |
| †F-30..... | 21½x25½ | 19x22 | 14x18 | 50 | 19.50 | 20.50 | .75 |
| F-31..... | 23½x27½ | 21x24 | 16x20 | 55 | 24.00 | 25.25 | 1.00 |
| F-32..... | 25½x29½ | 23x26 | 18x22 | 65 | 29.00 | 31.00 | 3.50 |
| F-33..... | 27½x31½ | 25x28 | 20x24 | 70 | 35.50 | 39.00 | 4.00 |
| *No. F-29 and F-29½ are fitted with two long shelves only. | | | | | | | |
| Style H—Hanging Cabinet | | | | | | | |
| H-49..... | 16¼x19¼ | ..... | 10x14 | 47 | \$19.75 | \$20.60 | \$0.25 |
| H-49½..... | 18¼x21¼ | ..... | 12x16 | 53 | 21.00 | 21.90 | .50 |
| †H-50..... | 21½x24½ | ..... | 14x18 | 60 | 23.75 | 24.75 | .75 |
| H-51..... | 23½x26½ | ..... | 16x20 | 71 | 28.00 | 29.25 | 1.00 |

†Numbers 20, 30 and 50 Cabinets will be supplied with 16x20 mirrors, if desired, at \$2.45 extra for plain or \$3.70 for beveled.
Left hand cabinets, \$1.50 extra; Yale lock with 2 flat keys \$2.50 extra.



Style F—To Recess



Style H—Straight Wall Cabinet



Style H—To Hang on Wall



For further details and literature, write to:

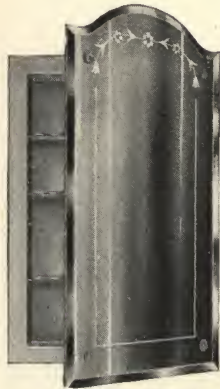
HESS WARMING & VENTILATING CO.

1207-1229 S. Western Ave.
Chicago, Ill.

Hess DeLuxe Snow White Steel Medicine Cabinets

Manufactured by

HESS WARMING & VENTILATING CO.
1207-1229 S. Western Ave., Chicago, Ill.



Venetian Model

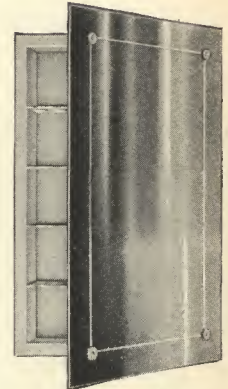
The mirrors can be furnished beveled or plain and conceal the entire cabinet. Hinges are of brass-nickeled and scarcely visible. No knob appears and the effect is that of a high class mirror. The inside is finished in white Duco enamel and furnished with polished plate glass shelves.

Mirrors are shipped separately to avoid breakage and are easily attached with bolts and white metal rosettes, which are supplied with the cabinets.

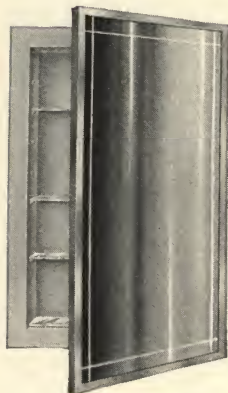
The Venetian Model has mitered lines, etched flower scroll, rosettes and beveled mirror.

The Colonial Model has mitered lines, white metal rosettes and beveled mirror.

The Parisian Model has a half-inch steel band around mirror. This may be in white, colors or plated. Mitered lines on mirror. White enameled inside.



Colonial Model



Parisian Model

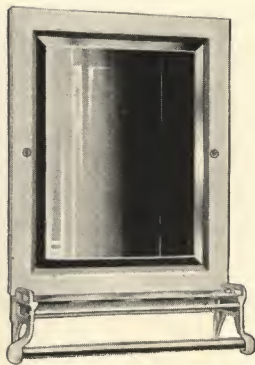
| Number | Mirror | Wall Opening | LIST PRICE | |
|-----------|--------|--------------|-----------------------------------|--------------------------------------|
| | | | Cabinets complete with Mirrors | Mirrors and Back without Cabinets |
| Venetian | | | | |
| 519..... | 16 x28 | 13 x22 x4 | \$36.00 | \$32.00 |
| 519½..... | 17¼x30 | 15 x24 x4 | 40.00 | 34.00 |
| 521..... | 19¼x32 | 17½x27½x4 | 46.00 | 38.00 |
| Colonial | | | | |
| 419..... | 16 x25 | 13 x22 x4 | \$35.00 | \$31.00 |
| 419½..... | 18 x27 | 15 x24 x4 | 39.00 | 33.00 |
| 421..... | 20 x30 | 17½x27½x4 | 44.00 | 36.00 |
| 429..... | 16 x20 | 13 x17 x4 | 32.00 | 28.00 |
| 429½..... | 18 x22 | 15 x19 x4 | 36.00 | 30.00 |
| 431..... | 20 x24 | 17½x21½x4 | 41.00 | 33.00 |
| Parisian | | | | |
| 619..... | 16 x25 | 13 x22 x4 | \$30.00 | \$26.00 |
| 619½..... | 18 x27 | 15 x24 x4 | 34.00 | 28.00 |
| 621..... | 20 x30 | 17½x27½x4 | 39.00 | 31.00 |
| 629..... | 16 x20 | 13 x17 x4 | 27.00 | 23.00 |
| 629½..... | 18 x22 | 15 x19 x4 | 31.00 | 25.00 |
| 631..... | 20 x24 | 17½x21½x4 | 36.00 | 28.00 |

Lavatory Mirrors

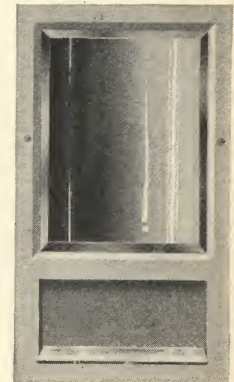
Hess Lavatory Mirrors are of the same material as the mirror doors of cabinets, and are of the same construction. Made with or without shelves and towel bars. Especially desirable for hotels, clubs, etc., where there is no need for a medicine cabinet. They attach to any wall by means of screws which are furnished with the mirrors. Toggle bolts for use in hollow tile or plaster walls will be supplied when requested.

Style A has a plate glass shelf and polished glass towel bar. Shelf is supported by white enameled cast iron brackets. Mirrors will be supplied without shelf and bar if desired.

Style AA has pocket shelf below, with plate glass bottom. Made in same sizes as Style A.



Style A



Style AA

Style A—Lavatory Mirror With Glass Shelf and Towel Bar

| Style A No. | Outside Dimensions | Size of Mirror | Shipping Weight Pounds | Prices | |
|-------------|--------------------|----------------|------------------------|--------------|----------------|
| | | | | Plain Mirror | Beveled Mirror |
| 6 | 12½x16½ | 10x14 | 30 | \$12.50 | \$13.35 |
| 6½ | 14½x18½ | 12x16 | 33 | 14.50 | 15.40 |
| 60 | 17¼x21½ | 14x18 | 35 | 16.40 | 17.40 |
| 61 | 19¼x23½ | 16x20 | 38 | 19.00 | 20.25 |
| 62 | 21¼x25½ | 18x22 | 40 | 22.50 | 24.50 |
| 63 | 23¼x27½ | 20x24 | 43 | 25.75 | 28.75 |

Style AA—Lavatory Mirror With Open Pocket Shelf Below

| Style AA No. | Dimensions | | Wall Opening | Ship. Wt. Lbs. | Prices | |
|--------------|------------|--------|--------------|----------------|--------------|----------------|
| | Outside | Mirror | | | Plain Mirror | Beveled Mirror |
| 16 | 12½x25½ | 10x14 | 6½x9¼ | 25 | \$10.50 | \$11.35 |
| 16½ | 14¼x27½ | 12x16 | 6½x11¾ | 28 | 11.90 | 12.80 |
| 160 | 17¼x29½ | 14x18 | 6½x13¾ | 30 | 13.30 | 14.30 |
| 161 | 19¼x31½ | 16x20 | 6½x15¾ | 35 | 16.00 | 17.25 |
| 162 | 21¼x33½ | 18x22 | 6½x17¾ | 40 | 21.00 | 23.00 |
| 163 | 23¼x35½ | 20x24 | 6½x19¾ | 45 | 25.00 | 28.50 |



For further details and literature, write to:

HESS WARMING & VENTILATING CO.

1207-1229 S. Western Ave.
Chicago, Ill.

UNITED STEEL MEDICINE CABINETS

Manufactured by

UNITED METAL BOX CO., Inc.

473-493 President St., Brooklyn, N. Y.

UNITED



UNITED



The Venetian Mirror Cabinet illustrated above is the finest type Medicine Cabinet made and is suited for the highest grade buildings and the most elegantly equipped residences.

Write for further details.

"United" Steel Medicine Cabinets are standardized as to types and sizes to meet the great need of apartment houses, hotels, institutions, public buildings and private homes for a beautiful, absolutely sanitary and permanent steel cabinet at a most reasonable price.

They are made in two general types; one type with a single thickness steel door and the other type, those of the larger size, with a hollow steel door of substantial construction.

The unique construction features of the "United" Cabinet can best be appreciated by an inspection of a sample, particularly the hollow steel door type, which is constructed in a manner entirely revolutionary in the manufacture of cabinets.

Constructional Features of all "United" Cabinets

Indestructible—Entire cabinet is made of heavy gauge steel and protected against rusting.

Dustproof Interior—Front of cabinet is made from one

piece and door is recessed into the front frame to exclude dust and dampness.

Concealed Hinges—Door is hung on heavy concealed hinges and may be opened parallel to the wall. Will not sag or tear loose with rough usage.

Adjustable Shelves—Plate glass shelves are furnished with each cabinet. Shelf clips are permanently attached and so constructed as to retain shelf whether door hinges to right or left.

Substantial Door Knob and Catch—Door knob is of ornamental glass. Door is kept closed by means of a concealed bullet catch.

Quality Plate Glass Mirrors—Mirrors are high grade, double plate, mounted on inside of door and completely encased.

High Grade White Enamel Finish—All exposed parts of the cabinet are finished in a permanent baked, smooth white enamel finish.

| Cat. No. | Type | Wall Opening | Overall | Bevel Mirror | Cat. No. | Type | Wall Opening | Overall | Bevel Mirror |
|----------|--------|--------------|---------|--------------|----------|---------|--------------|---------|--------------|
| 500 | Recess | 14½x18½ | 17x21 | 10x14 | *1502 | Recess | 19x25 | 21x27 | 14x20 |
| 500-A | Recess | 14½x18½ | 17x21 | 12x16 | *1502-A | Recess | 19x25 | 21x27 | 16x22 |
| 501 | Recess | 16½x20½ | 19x23 | 12x16 | †*1602 | Recess | 19x25 | 21x27 | 14x14 |
| 501-A | Recess | 16½x20½ | 19x23 | 14x18 | †*1602-A | Recess | 19x25 | 21x27 | 16x16 |
| *601 | Recess | 16½x20½ | 19x23 | 12x12 | * 900 | Surface | For Wall | 17x21 | 10x14 |
| †601-A | Recess | 16½x20½ | 19x23 | 14x13½ | * 900-A | Surface | Mounting | 17x21 | 12x16 |

*Hollow Steel Door type.

†Open Shelf type.

All cabinets listed above also made for surface mounting.



For further details and literature, write to:

UNITED METAL BOX CO., Inc.

473-493 President St.
Brooklyn, N. Y.

"White-Steel" Medicine Cabinets

Made by
"WHITE-STEEL" SANITARY FURNITURE CO.
Grand Rapids, Mich.

The Original
and Only



A Product of a
Secret Process

There Is a Great Difference in Medicine Cabinets!

Careful, side-by-side comparison of the various makes of medicine cabinets reveals startling differences. Yet the difference in advertising claims by the manufacturers are nil—most of them in no uncertain terms claim "the best."

It is therefore obviously sound to make the suggestion that when you buy—select—choose by comparison as you would other things you buy.

Unmistakable Evidence of "White-Steel" Supremacy

Upon this basis—the basis of real sound judgment—you will prove to your own complete satisfaction that "White-Steel" Cabinets **actually** do surpass all others. You will note marked superiority in materials used, in finish, and especially in beauty of design and enduring construction.

The exclusive sanitary features of "White-Steel" cabinets will impress you. Then add to all these findings the fact that through a secret process their ultra attractiveness and construction is made practically **everlasting**.

Henzin Metal—The Base of All "White-Steel" Medicine Cabinets

This is a highly important superiority. Henzin Metal, the base of all "White-Steel" Cabinets, completely overcomes the decidedly important moisture problem. It is **Rust-Resisting**—a product of a secret process that cannot be duplicated or successfully imitated. **Six coats** of "White-Steel" enamel, **each baked** separately on this rust proof base, provides a finish that is as permanent as it is beautiful. Expansion or contraction has no effect on the finish or construction of these cabinets.

Ask those using ordinary steel enamel cabinets of their experiences. Invariably they will tell you of scaling finish, discoloring, cracking or peeling. The dampness and moisture that occur with sudden temperature changes particularly in the bath room are disastrous to ordinary steel enamel work.

The Henzin Metal used for "White-Steel" structures are .050 to .125 gauge (approximately $\frac{1}{16}$ to $\frac{1}{8}$ inch) except for the backs which are .025. Our dies and shop practice require certain gauge to be used for a specific purpose, not permitting the substitution of cheaper or lighter gauge sheets to lessen construction costs.

Seamless Construction

Every "White-Steel" Cabinet is of die made seamless construction, is electrically welded throughout, and is strong and firmly built. An examination will bear this out and prove to you that this is a superiority of decided importance.

Mirrors

Mirrors are of first quality, plain or with a sharp, steep bevel. Backs are properly silvered and are not affected by varying temperatures or room moisture.

Shelves are of polished plate glass, $\frac{1}{4}$ -inch thick.

1. Adjustable lock pivot hinge (patent applied for). Doors can always be properly centered thus eliminating wear.
2. Mounted white ceramic demountable knob to match the white handles of plumbing fixtures.
3. Six coats of enamel, baked on the famous rust-resisting Henzin Metal.
4. Heavily reinforced at anchorage.
5. No floating shelf supports. Supports are spot-welded—cannot become loose or lost.



Ventilation

Step-in door and step-in door jamb providing sufficient, and invisible ventilation—an important factor.

Demountable mirrors that can be easily installed by any competent workman. (Should replacement of accidental damage be necessary at any time.)

Standard and Special Types

"White-Steel" Medicine Cabinets are built in three standard types—Inset (to recess), Wall (to attach to face of wall) and Corner Cabinets (to fit in corner)—and in styles and sizes to meet every architectural requirement.

We maintain a very efficient consulting and designing service which is free to contractors and builders.

The More You Investigate the More Sure You Are to Invest in "White-Steel" Cabinets

We urge comparison of "White-Steel" Cabinets with any or all other makes on the market. There is no better way to secure your decided preference and decision in favor of "White-Steel" Cabinets.

Experienced builders will verify the claims we make—they know from experience that the added convenience and the touch of beautiful, lasting construction these cabinets impart repay their cost many times over, both in satisfaction to the home owner and in the actual sales value of the house itself. Many builders recommend them for kitchens, over the sink, and lavatories, as well as bath rooms.

Write today for Literature Giving More Complete Details and Illustrating Our Complete Line

Bear in mind our line of medicine cabinets is large and in addition we manufacture Mirrors, Shelves, Towel Baskets, Racks and Bars, Soap Dishes and Holders, Tooth Brush Holders, Toilet Paper Holders and Cabinets, Grab Rails, Shower Curtain Rods, Hooks for Various Purposes, Door Stops, and every accessory to equip bath rooms of the most modern type.



For further details and
literature, write to:

"WHITE-STEEL" SANITARY FURNITURE CO.

GRAND RAPIDS,
MICHIGAN

Factors Which Make Warm Air the Most Satisfactory and Desirable Heating System

Healthful Heat

Home health and comfort depend upon the proper degree of warmth, humidity and air motion. It must be conceded that any type of heating system will raise the temperature of the room, but WARM AIR alone affords WARM, MOIST, RE-CIRCULATING AIR. A room at 70° with ample moisture in the air is vastly more pleasant and has a greater feeling of warmth than dry air at 75°.

Homes heated with Warm Air are protected against the ills which come from sudden weather changes, from disease which breeds in stagnant air, from the unhealthful effects of dead, dry air.

Because a Warm Air System keeps the atmosphere of the entire house in motion it should be installed as a simple matter of health.

Simple of Control

A Warm Air System is simple to control. It is flexible. It may be operated to afford just enough warmth to take the chill from the late spring air—or it will maintain a constant temperature of 70° in severest weather, flooding each room with healthful heat which assures winter well-being.

Safe

Warm Air is safe, avoiding the dangers and worries of many other systems.

Long Life

Warm Air Heating systems afford years of constant service, surprisingly free from repairs or replacements.

Easily Installed

The Warm Air system is simple and easy of installation.



Make certain that you obtain a Standard Code Installation by going to the dealer displaying this symbol. It is your assurance of a scientific installation, high-grade workmanship, fair prices and fulfillment of the Code Specifications.



Warm Air Heating has been placed upon a scientific basis by eight years of research work carried on in this house under the auspices of the National Warm Air Heating and Ventilating Association in co-operation with the University of Illinois. This exhaustive research resulted in the "Standard Code" now in general use.

Economical

The Warm Air furnace burns all types of fuels—hard and soft coal, coke, wood, gas, oil. Excepting oil and gas, these fuels operate successfully without change or rearrangement of the standard furnace. Fuel is converted into heat, which is delivered direct to the rooms to be heated. Because of this, Warm Air is the most economical system.

No Lost Floor Space— No Sacrifice of Beauty

Warm Air requires no bulky appliances demanding floor room. Unobtrusively, harmoniously, the warm air register adapts itself to any scheme of decoration.

Clean Heat

Warm Air, properly installed, is clean. No dust arises from registers to streak walls and ruin curtains and drapes, provided the furnace is set up by a competent installer.

Before You Build Investigate Thoroughly the Possibilities of Warm Air

The farther one proceeds with an investigation of Warm Air Heating, installed according to the Standard Code, the wider is the vista of its numerous advantages.

For health, home-comfort, efficiency, cleanliness, ease of regulation and economy, insist on Warm Air Heat. But the furnace and fittings must be installed "According to the Standard Code" to obtain these benefits with the triple endorsement of this Association, the Furnace Manufacturer and the Dealer, that the installation will provide an inside temperature of 70° in every room with sub-zero weather outside.

Send us your name and we'll send you free of charge an interesting booklet of valuable facts about home heating.



For further details and literature, write to:

National Warm Air Heating and Ventilating Association

174 E. Long St.
Columbus, Ohio

Standard Code Regulating the Installation of Warm Air Heating Furnaces in Residences

Approved and Issued by Authority of

NATIONAL WARM AIR HEATING & VENTILATING ASSOCIATION

52 W. Gay St., Columbus, Ohio

ARTICLE NO. 1

Meaning of the Term "Warm Air Furnace Heating Plant"

Warm air furnace heating plants, to which this code refers, shall consist of one or more warm air furnaces, enclosed within casings, together with necessary appurtenances therefor, consisting of warm air pipes and fittings, cold air or recirculating pipes, boxes and fittings, smoke pipes and fittings, registers, borders and face plates, the same being intended for heating buildings in which they may be installed.

ARTICLE NO. 2

Provisions to be made in Building under Construction for Reception of Warm Air Furnace Heating Plant

Section 1. (a) The following provisions shall be made by the owner or building contractor, in any building wherein a warm air heating plant is to be installed.

(b) Where warm air register boxes, heads, pipes or stacks are to be installed, joists shall be set not less than sixteen inches (16") on centers and shall be butted and not lapped. Studding shall set directly over and under joists, leaving a space of not less than fourteen inches (14") between studs and joists. Wherever joists are cut, headers must be put to support joists.

(c) All first story single or sub-floors shall be continuous. In all houses having studded exterior walls, these floors shall be extended to the outside sheathing and all spaces between studding shall be closed at the attic line.

Note 1. It is strongly recommended that the attic be tightly floored to reduce heat losses.

(d) All partition walls (or sections of the walls) in which heat stacks to second floor rooms are to be installed, shall be built of six inch (6") studding to second story floor joists.

Chimneys

Section 2. (a) The owner shall provide a chimney for the furnace constructed in a manner to comply with the following specifications.

(b) The chimney must be absolutely smoke tight throughout its entire length, and must extend at least three feet (3') above a flat roof or two feet above the ridges of peak roofs.

(c) If built of a single thickness of brick or of cement blocks, it shall be lined throughout its entire length with fire clay flue lining, having not less than three-fourths inch ($\frac{3}{4}$ ") thickness. Flue lining to be laid in mortar and made air tight.

(d) The furnace flue must have no other opening for attaching any fireplace, furnace, stove, range, water heater, gas or ventilating connection.

(e) If necessary to offset the flue, it must be done in such manner as not to reduce the cross sectional area nor create a ledge or obstruction, where loose material may lodge.

(f) Its narrowest internal dimension shall not be less than eight (8") inches and no flue smaller than 8" x 8" rectangular or eight (8") inch diameter round will be considered suitable when hard coal is to be burned, or 8" x 12" rectangular or ten (10") inch round for soft coal or wood.

(g) It is strongly recommended that nothing less than 8" x 12" internal dimensions be used in any case.

Note 2. It is recommended that the height above the furnace grate be not less than twenty-six (26') feet.

Note 3. It is strongly recommended that all new chimneys be built in strict accordance with the ordinance recommended by the National Board of Fire Underwriters.

ARTICLE NO. 3

Method for Determining Size of Warm Air Pipes, Wall Stacks and Furnaces for Use in a Residence

Method of Determining Size of Basement Warm Air Pipes

(Read Explanatory Notes 4 to 11)

Section 1. First Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and multiply by 9.
The result is the area of the basement pipe.

(The sum of:
Glass (sq. ft.) (Note 4) $\div 12$
Net Wall (sq. ft.) (Note 5) $\div 60$
Cubic Contents $\div 800$) $\times 9$ = Area of Basmt. Pipe (Note 10)

Section 2. Second Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and multiply by 6.
The result is the area of the basement pipe.

(The sum of:
Glass (sq. ft.) (Note 4) $\div 12$
Net Wall (sq. ft.) (Note 5) $\div 60$
Cubic Contents $\div 800$) $\times 6$ = Area of Basmt. Pipe (Note 10)

Section 3. Third Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and multiply by 5.
The result is the area of the basement pipe.

(The sum of:
Glass (sq. ft.) (Note 4) $\div 12$
Net Wall (sq. ft.) (Note 5) $\div 60$
Cubic Contents $\div 800$) $\times 5$ = Area of Basmt. Pipe (Note 10)

Method of Determining Size of Wall Stacks.

Section 4. First Floor Rooms.

Same as Section 1.

Section 5. Second Floor Rooms.

Deduct 30% from basement pipe area determined in Section 2.

Section 6. Third Floor Rooms.

Deduct 30% from basement pipe area determined in Section 3.

Explanatory Notes

Note 4. In obtaining glass surface use full casement opening. An outside door is figured as glass.

Note 5. To obtain net outside wall multiply height by width and deduct the glass in all windows and outside doors.

Note 6. For rooms having unusual exposure ordinary north, northeast and northwest, add 15% to pipe area. For east and west exposure, add 10%.

Note 7. For cold ceilings, add one half net area of ceiling to net exposed wall cold ceilings are those next to unfloored attics.)

Standard Code of Installation of Warm Air Furnaces (Cont'd)

Note 8. Use no warm air pipe less than 8 inches in diameter. If a basement warm air pipe figures greater area than any standard commercial size then the next larger size shall be used.

Note 9. It is understood in using the above valves for determining basement warm air pipe areas, that these pipes should run comparatively straight and that they should not be over 10 to 12 feet in length. Sharp turns and long pipes should have extra capacity.

Note 10. These formulae are for 70° inside temperature with zero temperature outside. For a temperature of 10° below zero, add 10% to the capacity of each pipe.

Note 11. The value of 800 (used in cubic contents) is for an estimated air change of one room volume per hour. If it is desired to provide for 1½ room volume use the figure 600. If for 2 room volumes use the figure 400. "The factors 9, 6 and 5 in sections 1, 2 and 3, are calculated for a register air temperature of 175 degrees."

Transition Fittings and Stacks

Section 7. Transition from warm air pipes to stacks shall be made with a well designed elbow or boot and no stack shall be less than 70% of the warm air pipe area.

Method of Determining Size of Registers

Section 8. All registers shall have a free area not less than the sum of all the warm air pipe areas.

Method of Determining Size of Furnace

Section 9. Add together the actual warm air pipe areas in sq. in. as obtained in Sec. 1, 2 and 3, and select a furnace having a free area not less than the sum of all the warm air pipe areas.

ARTICLE NO. 4

INSTALLATION

Location of Furnace

Section 1. The location of the furnace shall equalize the length of warm air runs as far as possible, yet give necessary preference to pipes supplying living rooms, dining rooms and main halls.

Foundation

Section 2. Furnace foundation of brick, cement, or other incombustible material must be provided. Said foundation to extend at least fifteen (15") inches at rear and sides of furnace casing and at least thirty-six (36") inches in front of furnace casing. Foundation to be level.

Setting or Assembling of Furnace

Section 3. (a) The base ring of the furnace shall be cemented to the foundation, making an air tight joint. The furnace parts shall be assembled plumb and level, and in a workmanlike manner.

(b) All sections and points shall be properly fitted. Joints requiring cement shall be well filled and all bolts shall be drawn up tightly.

Casings

Section 4. (a) Warm air Furnaces shall be enclosed in metal casings or walls of brick, tile or concrete.

(b) Portable. Sheet metal casings including casing tops shall be made of galvanized sheets, not lighter than 26-U. S. Standard Gauge. They shall fit the castings and casing rings closely, so as to be dust tight, and shall be securely fastened to the front. The casing shall be lined from the upper casing ring down to a line on a level with the grate.

(c) When side collars are used the casing top must be of sufficient height so that the largest warm air pipe can

be taken from side without ovaling. In no case shall a distance less than eight (8") inches be maintained between the top of any furnace and the top of casing or bonnet.

(d) Any furnace, the casing top of which shall come within sixteen (16") inches of a combustible floor, ceiling or joist, shall be protected by a metal shield, extending not less than eighteen (18") inches beyond the casing of said furnace. This shield shall be suspended at least two inches below wood work, allowing free air space between shield and woodwork. No furnace casing or top, coming nearer than six (6") inches of ceiling or joists shall be allowed in any case.

(e) Openings for side casing collars shall be cut into the casing top, so that the tops of all openings are on a level. Casing collars shall be fitted into place with a proper flange, or bead on the outside and drawn up on the inside, making a dust-tight joint. All collars shall be of same size as the warm air pipes to which they are to be connected.

(f) Brick set, cement or hollow tile casings shall be constructed as follows: Walls shall be not less than eight (8") inches in thickness, and shall be constructed air tight. Rectangular casing shall be, with least inside dimensions, the same as that of the portable casing of a corresponding size of furnace. Walls shall be carried to the same height as the portable walls, allowing not less than eight (8") inches between the top of the furnace and the bottom of the top cover. After placing the collars for the warm air pipes, continue the masonry up even with the top of the collars, lay spacing rods of bar iron on edge or angle irons across the furnace top, cover these with sheet iron, cover the sheet iron with masonry and run the side walls four (4") inches above the masonry bed. A galvanized iron casing bonnet may be used on brick set furnaces.

Provision shall be made in the walls for a manhole to give ingress to heater.

Warm Air Pipes in Basement

Section 5. (a) All warm air pipes shall be made of bright tin not lighter than IC, or galvanized iron. Side seams shall be locked seams. All joints shall be either double seamed or lapped not less than one and one-quarter (1¼") inches and such joints shall be beaded and soldered or riveted. All pipes shall be properly secured to ceiling or joist. No solder or riveted joint is required where round pipe slips over the casing collar. Any pipe twelve (12") inches or greater in diameter shall not be made of material lighter than IX tin or No. 26 U. S. Standard Gauge galvanized iron.

Note 12. It is recommended that all warm air pipes in the basement shall have an upward pitch of not less than one (1") inch per running foot.

(b) No warm air pipe shall run within one (1") inch of any woodwork unless such woodwork is covered with asbestos paper and the paper covered with tin or iron.

(c) All warm air pipes in the basement shall be provided with dampers not more than two feet from the casing.

(d) Where warm air pipes pass through a masonry wall, a metal thimble shall be provided, having a diameter at least 1" greater than the pipe, and pipe supported in such a manner that the air space is uniform on all sides.

Standard Code of Installation of Warm Air Furnaces (Cont'd)

Wall Stacks

Section 6. (a) Single Stacks. All single wall stacks or wall pipes, heads, boots, ells, tees, angles and other connections shall be made of bright tin or galvanized iron and shall be covered with not less than one thickness of 12 lbs. per one hundred (100) square feet of asbestos paper. All studding and other woodwork facing said pipe shall be lined with metal and metal lath used in place of wood lath. An air space of not less than three eighths ($\frac{3}{8}$ ") of an inch shall be allowed on the two sides nearest the vertical studs. All such pipes shall be braced in a proper manner so as not to obstruct the flow of air but to retain the full capacity throughout. All joints shall be locked and held in place by means wholly upon solder to make it tight.

(b) Double Stacks. All double wall stacks or wall pipes, heads, boots, ells, tees, angles and other connections shall be made of bright tin, not lighter than IC or galvanized iron and shall be made double, from and including the boot or foot piece in basement to the top of each and every stack and register head on all space of not less than five-sixteenths ($\frac{5}{16}$ ") of an inch, which must be maintained between the outer and inner walls of all such pipes and fittings of all kinds, styles and descriptions; such pipes, heads, boots and other fittings to be of the styles, or equal to those accepted by the National Board of Fire Underwriters.

All pipes and fittings either single or double must be secured firmly in place by lugs or straps attached to the outer walls of stacks and fittings, and no nails shall be driven through these stacks or fittings at any point. No wall pipes or fittings shall be used which depend wholly on soldered joints. The various members shall be so made that all joints are locked and soldered and the several members shall be attached to each other with slip joints, which are, for the purpose intended, air tight.

Registers

Section 7. (a) When baseboard or wall registers are used, they shall be properly and permanently attached to the stack head in such a manner that will prevent any leakage of air between the head and the register.

(b) Floor registers shall be provided either with register borders, or double register boxes of tin or galvanized iron with an air space of not less than five-sixteenths ($\frac{5}{16}$ ") of an inch between inner and outer boxes.

(c) Registers for warm air and warm air pipes shall not be located in outside walls. The warm air registers in the various rooms shall be located in or near the inside walls in all cases.

Air Supply to Furnace

Section 8. (a) The air supply to furnace for warm air heating plants may be taken from outside or from within the building or may be taken partially from outside and partially from within. In no case, however, shall air be supplied to any furnace from any basement or furnace room.

(b) The cold air intake or return where air is taken from within the building shall have a net area throughout its entire length of not less than the combined net area of all warm air pipes leading from the furnace. This may be maintained in one or more ducts.

(c) When the cold air supply is taken wholly from the outside of the building the supply duct at its most contracted area must equal or exceed eighty (80%) per cent of the combined area of all warm air pipes leading from the furnace.

(d) Cold air ducts shall be constructed of metal, tile or other incombustible material having smooth inner surface and shall maintain a constant net area throughout their length and shall be made air tight. Where a boot or shoe is connected to the casing at the base, the opening shall not extend higher than a line on the level of the grate of the furnace. The width of the shoe shall be of proper

measurement to make the area at least equal to that of the round or square pipe to which it is connected.

(e) Wherever the space between joists is used to convey cold air over head, the joists and all wooden surfaces between such joists shall be lined with metal and a sheet metal pan constructed to extend not less than six (6") inches below said joists. The connection from this pan to the boot or shoe shall be made of galvanized iron not lighter than No. 26 U. S. Standard Gauge, and shall have a transition collar, the top area of which shall be at least 10% greater than the area of the connecting pipe.

(d) The cold air face or faces shall be made of wood, or metal. When set in floors the top of same shall be flush with floor. Where cold air face is placed in a seat or side wall (whether furnished by owner, general contractor or furnace contractor) the open work of face must extend to within at least one (1") inch of the floor line.

The free area of cold air faces shall be at least 10% in excess of the free area of the duct or ducts to which they are connected.

Note 13. The effective area of a vertical cold air face lies within twelve (12") inches of the floor line, hence, the capacity of any vertical cold air face shall be determined by multiplying the base line in inches by not to exceed twelve (12") inches in height and deducting for the grills or cross bars.

Smoke Pipes

Section 9. (a) The smoke pipe shall be as short and direct as consistent with the location of the furnace. It shall be made of either black or galvanized iron not lighter than No. 24 U. S. Standard gauge, and of the full size of the collar on the furnace throughout its entire length. It must have no other opening for attaching any fire place, stove, range, water heater, gas or ventilating connection. It shall be lock seamed or riveted; all joints shall lap not less than one and one-half ($1\frac{1}{2}$ ") inches and it shall be rigidly secured. Cast iron smoke pipe may be used.

(b) Where the smoke pipe enters the flue, a thimble shall be cemented into the flue and the connections thereto made air tight. Should any smoke pipe come within eighteen (18") inches of any combustible material, such combustible material must be covered with asbestos paper and a metal shield so fastened that a two inch air space exists between this shield and the combustible material. This shield shall be no less in size than twice the diameter of the smoke pipe and of sufficient length to cover the wood at all points.

(c) No smoke pipe shall project through any external wall or window.

Pipeless or One Pipe Furnaces

Section 10. (a) When but one duplex grating is used for both warm air and cold air in a so-called pipeless furnace, the area of the cold air intake shall be at least equal to the area of the warm air outlet of the grating. Art. 4 Sec. 4, relative to casing shall not govern when this type of furnace is installed, but the following specification shall be followed: The inner and outer casing of this type of furnace may be made of either black or galvanized iron not lighter than No. 26 U. S. Standard Gauge. A uniform air space shall be maintained at all points between the inner and outer casing. In no case shall the top of the furnace be allowed closer than twelve (12") inches to any ceiling or joists above the furnace.

(b) Where joists are cut to accommodate this furnace, headers shall be put in and braced so as not to weaken the structure of the floor above the furnace.

(c) Article No. 3 for determining area of warm air pipe shall not govern in figuring a pipeless furnace.

(d) Where one warm air register face is used and separate face or faces for cold air supply are used, then Article No. 4, Sections 5 and 8 shall apply.



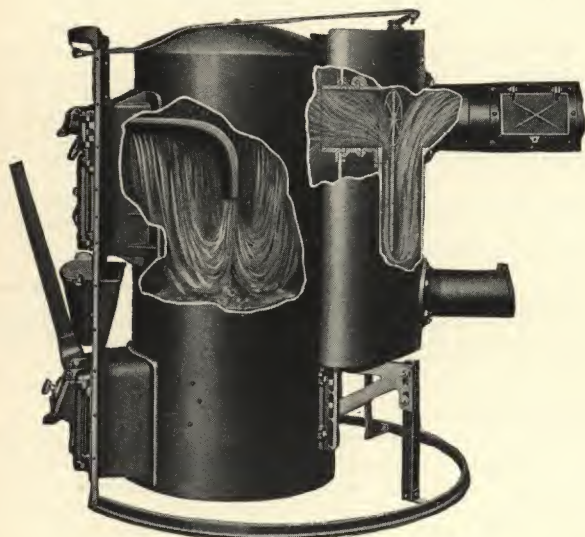
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Electric Welded



TO THE CONTRACTOR: *Property values are increased by using this economical fuel-saving furnace. A new home equipped with Cole's Hot Blast Furnace will increase the value of the home from \$300.00 to \$500.00. Special prices to contractors and builders.*

Cole's Furnaces are *air-tight* and *gas-tight* as all seams are electrically welded and cannot leak smoke or gas.

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Roll a piece of paper in the shape of a funnel. Fasten the tube to a pencil as shown. Light the lower end of the tube and note the volume of unburned fuel gases and smoke that pour from the other end. (Just like from a chimney.) This is the way all bottom draft stoves waste the valuable fuel gases.

Now hold a lighted match to the other end of the tube as shown and see how the escaping fuel gases catch fire and burn. Also note that the smoke disappears. This is exactly how Cole's top Hot Blast Draft burns the fuel gases and turns them into heat.



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Cole's Gas Ranges are designed to burn either natural or artificial gas. Oven is two inches deeper than ordinary gas range. Removable oven linings are easily cleaned. Have oversized cooking top. Boltless construction and concealed door hinges. New sanitary manifold shield covers unsightly manifold pipe. Extra wide top shelf. Furnished with or without Heat Control. Write for full particulars on Cole's Apartment and Bungalow Ranges.



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Manufactured by
CO-OPERATIVE FOUNDRY COMPANY
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For over sixty years Red Cross Ranges and Furnaces have
"Made Good Cooking and Heating Certain"

Products

Red Cross Ajax and Empire Furnaces; Red Cross Circulating Heaters.

Red Cross Coal, Gas and Combination Ranges; Red Cross Oil Stoves.

A complete line of high grade cooking and heating equipment.

Red Cross Furnaces



Red Cross Empire
Cast Radiator Type

An abundant supply of warm air is delivered by Red Cross Ajax and Empire Furnaces because of their extra large radiating surfaces.

Construction

Red Cross Furnaces are constructed of the highest grade of tested materials—plus the scientific design of their various parts—which insures utmost heating efficiency. Red Cross Ajax and Empire Furnaces are made in a complete range of sizes to fit all ordinary warm air heating requirements, with either cast or steel radiator and in high or low construction type.

Models

The Ajax, where comfort and satisfaction is more important than price. The Red Cross Empire, a quality furnace at a fair price when price is the main consideration.

Sizes

The Ajax ranging in fire pot diameters from 18 inches to 33 inches. The Empire from 18 to 26 inches.

RED CROSS RANGES FURNACES

Trade Mark Reg. U. S. Pat. Off.

The evolution of heating plants of maximum heating efficiency at minimum cost of installation and upkeep was the dominant idea in designing and building the Red Cross Ajax and Empire Furnaces.

They have established an enviable reputation for genuine heating efficiency, fuel economy and durability second to none.

Red Cross Ranges

A range for every requirement in the many sizes and styles of Red Cross Ranges—Gas Ranges, Welcome and Popular Combination Ranges, two Coal-Heat Models, Bungalow Ranges, Coal Ranges and Oil Stoves.

Red Cross Gas Ranges

The outstanding features of Red Cross Gas Ranges are their beauty of appearance, sturdy construction, compactness and good cooking and baking qualities. The Red Cross has been installed in many of the finest apartment houses of the quality type.

Construction

The baking and broiling ovens are double walled and asbestos insulated to retain the heat and keep the kitchen cool.

The oven bottom on all cabinet styles is of cast iron—the linings are enameled on full enamel ranges—rust resisting on other models. Linings can easily be removed for cleaning.

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Toned in a lasting finish of all-white porcelain enamel or a pleasing combination of gray and white, the Red Cross Gas Range is a thing of real beauty.

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One giant, one simmering and three regular cooking burners on Red Cross Gas Ranges add to their convenience and economy. Burners are instantly removable for cleaning—no bolts or pins are used.

Wilcolator Automatic Oven Heat Regulator can be furnished on all cabinet style ranges at small additional cost.

Catalogs and Prices

Complete details and catalogs of Red Cross Products will be furnished upon request. (Specify whether interested in ranges, furnaces or both.) Red Cross products are sold direct to builders where the quantity ordered will so warrant.



Red Cross Gas Range
No. 416-G-R



For further details and literature, write to:

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3. Passes through any stairway
4. Easier, faster assembly
5. No cutting or fitting required on casing.

The illustration below shows some of the LIFETIME quality features in Hall-Neal Fin-Radiation Furnaces.

1. Intercepting Heat Conveyors (Pat. Jan. 2, 1923) are an advanced radiator design giving remarkable increases in furnace efficiency. This new type radiator cannot clog up with soot.
 2. The Intercepting Heat Conveyors, are mounted on each side of the furnace simply by hanging them on welded hooks.
 3. The strongly reinforced flanges holding the flue section to the furnace are air-tight, smoke-tight and gas-tight.
 4. A heavy plate at the point of greatest fire strike protects the furnace against all possibility of damage.
 5. Where the flue connections pass through the furnace casings gas-tight, smoke-tight and dust-tight flanges are used.
 6. The flue connection provides a direct draft to start a fire quickly and driving draft for greatest heating efficiency when the fire is well developed.
 7. A 2-inch lap joint between the two sections, 7 inches below top of fire brick, insures against smoke or gas entering the circulating air.
 8. The base ring of the NEW VICTOR Furnace is one-piece casting of such great strength that the furnace may be mounted over a pit, if desired, without using a supporting pillar in the pit.
 9. The water pan is conveniently placed and of large size.
 10. The flue damper is controlled from the front of the furnace, by a simple and positive device which is easily and quickly adjusted as required. All parts outside casing.
 11. Lower smoke damper is to be adjusted according to strength of draft and fuel used, and does not require further attention.
- The fire bowl is lined with heavy fire brick, closely fitted, giving an average length of service of 15 to 18 years without replacement. See one Victor Furnace in operation and you will be convinced.

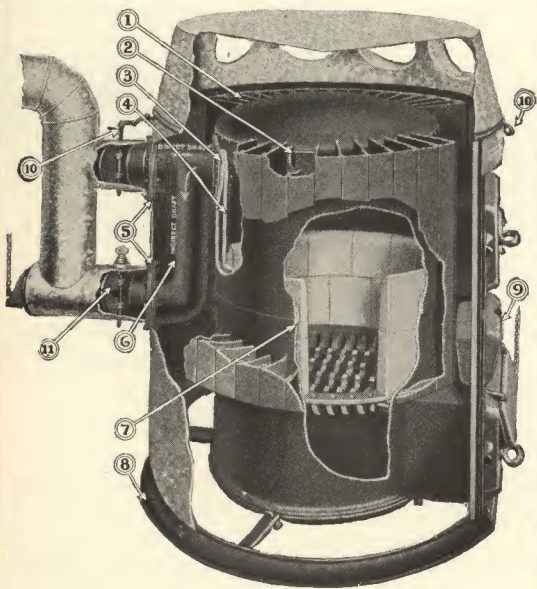


*For the best home heating
use a good warm-air plant*

A HALL-NEAL Furnace with its exclusive, patented FIN-RADIATION, installed according to the Standard Code of the National Warm Air Heating and Ventilating Association, gives the finest home heating plant that can be had.

And such a plant is within the reach of every pocketbook. No home owner needs to be without this greatest home comfort and health insurance—a real warm air plant that heats every room in the house.

The advantages of the exclusive patented improvement in radiation provided in Hall-Neal Furnaces by the Fin Sections shown in the illustration have been proved by accurate tests. Write to us for complete information.



For further details and literature, write to:

HALL-NEAL FURNACE COMPANY, Indianapolis, Ind.

HOME BUILDERS CATALOG

HOLLAND FURNACES

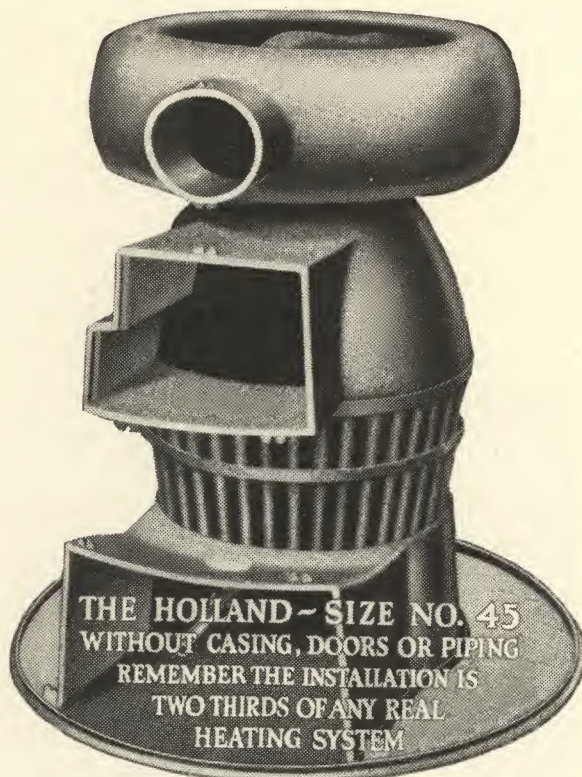
Our Product



Made by

HOLLAND FURNACE COMPANY
HOLLAND, MICHIGAN

WORLD'S
LARGEST
INSTALLER
OF
FURNACES



TRUE HOME COMFORT POSITIVELY GUARANTEED BY THE HOLLAND FURNACE COMPANY

Every user of a Holland Heating System knows exactly where to place all of the responsibility.

The World's Largest Installers of Furnaces are directly and solely responsible. And this includes the installation.

If you consider Heating the most vital element in home-comfort, which you undoubtedly do, why not put the responsibility where it belongs. All of the responsibility!

A Standard System for Heating Plans

A sound, carefully figured heating plan is made of every Holland system installed by trained men according to factory engineering standards. Every plan is checked by the engineering department at the home

office—every job is inspected after installation and is guaranteed. Do not ask less of any heating system you buy.

The Holland Humidifier Helps Keep You Healthy

With the Holland Warm-Air Circulating System you have all the heat you want and all the humidity you want. And, best of all, the air in the house: *clean* air, moistened—is kept in constant circulation! The house is delightfully ventilated.

Steam, Hot-Water and Vapor can provide heat—

at a price. That is *all* they provide. And old-fashioned "Hot-Air" provides still less.

It is the difference in heating-service that has made the difference in heating concerns.

There is no mystery about the growth of this organization, which began only twenty years ago, and is now much the largest concern of its kind in the world.

The Holland "Special" is now available at bottom prices in its various sizes

For booklets "C," no obligation



For further details and literature, write to:

HOLLAND FURNACE COMPANY, Holland, Mich.

MUELLER WARM AIR FURNACES

Manufactured by
L. J. MUELLER FURNACE CO.

Established 1857

GENERAL OFFICES
297 Reed St., MILWAUKEE, WIS.

BRANCH OFFICES

ST. LOUIS, MO., 4246 Forest Park Blvd.
DETROIT, MICH., 2280 Fourteenth Ave.
CHICAGO, ILL., 413 No. State St.
MINNEAPOLIS, MINN., 631 Third Ave. So.

ST. PAUL, MINN., 158 E. Fifth St.
SEATTLE, WASH., 2401-5 Utah St.
BALTIMORE, MD., 909 Cathedral St.
SALT LAKE CITY, UTAH, 150 State St. So.

FORT COLLINS, COLO.

Products

All-cast Warm Air Furnaces, pipe and pipeless types; combination wood and coal; wood burning only; Direct Fired Forced Air Unit Heaters; Horizontal Tubular Heaters for large churches and schools; steel furnaces.

For Gas-Era gas-fired Warm Air Furnaces and Boilers; also gas-fired and coal fired Furnacette (Cabinet Heater) see page 367.

For Steam and Hot Water Boilers, Hot Water Supply Boilers and Combination Hot Water Supply Boiler and Garbage Burners, see page 379.

For Registers, Grilles and Ventilators, see page 360.

Mueller Double Radiator Self-cleaning Furnace

This furnace is the most powerful warm air furnace on the market. It contains more than twice the amount of direct heating surface found on any other furnace of equal grate area. 20 vertical radiating pipes and large double radiator extract a maximum of heat from fuel burned. Vertical pipe construction makes heater self-cleaning. All castings fit together in deep cup joints, making heater smoke and gas tight. Every inch of the combustion chamber, dome and double radiator is direct fire surface.

Burns any kind of fuel economically. Hot smoke and gases must pass through two radiators before escaping to chimney. Especially adapted for oil burner installations. Made in seven sizes from 20 to 33 inch firepot. For a dependable and economical installation you can safely specify the Mueller Double Radiator Furnace.

Free Engineering Service

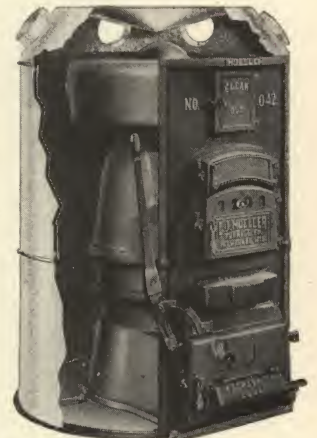
Mueller Furnace installations are planned by skilled heating engineers. They will recommend the type of heater that will do the work most efficiently and economically.



This service is free to purchasers of all types of Mueller Heating Systems. Over 300,000 homes are now Mueller-heated.

Mueller Full Front Warm Air Furnace

This furnace, of the Return Flue Radiator type, embodies the latest developments in furnace construction. Made in two styles of grates: 1. Flat duplex, with dump center, operated by waist high shaker, and crank shaker for removing clinkers or to dump fire; 2. Duplex triangular, operated by crank shaker only, the grates making complete turn, exposing new surface to fire with each operation. Made in 4 sizes each of single and double fire door, from 18 to 27 inch firepot.



Full Front Furnace. Burns any kind of fuel.

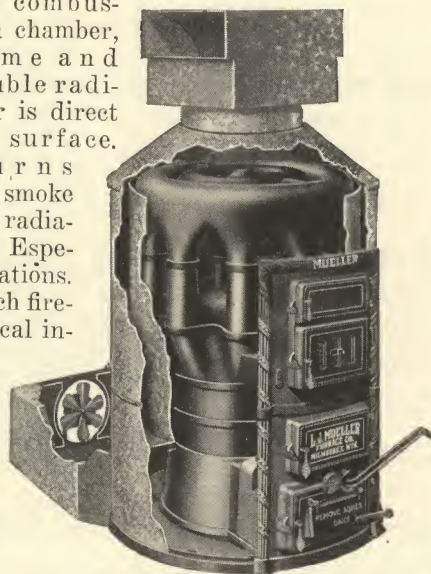
Mueller Direct Fired Forced Air Unit Heater

This type of installation is recommended for the proper heating and ventilating of schools, churches, factories, garages, warehouses, stores, offices and residences, where some of the runs are too long for satisfactory gravity installations. The complete unit consists of the Mueller Double Radiator Furnace, automatic furnace fan, special inner casing and galvanized fan shoe.

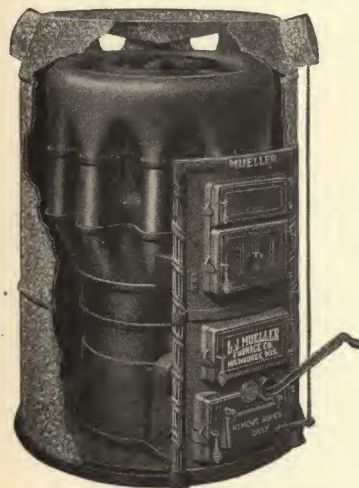
Insures a positive circulating system when needed, for peak loads and quick heating periods, and gravity circulation with proper free air area for night operation or when less heat is required.

Compared to steam systems, it is far more economical in first cost and maintenance, is more quickly responsive, and subject to direct control. No danger of freezing, breakages or shut-downs.

Adapted to the use of any fuel. The higher ratio of heating surface makes it ideal for use with oil burner. When fan is not in use, system operates by gravity. Further data on request.



Mueller Direct-Fired Forced-Air Unit Heater



Double Radiator Furnace showing 20 radiating pipes and large double radiator.



For further details and literature, write to:

L. J. MUELLER FURNACE CO.

297 Reed St.
MILWAUKEE, WIS.

"PERFECT" WARM AIR HEATERS

Since
1837

Manufactured by
RICHARDSON & BOYNTON CO.

260 Fifth Ave., New York City—Utica, N. Y.

Branch Sales Offices

Chicago, Buffalo, Cincinnati, Pittsburgh, Detroit, Philadelphia, Boston, Minneapolis

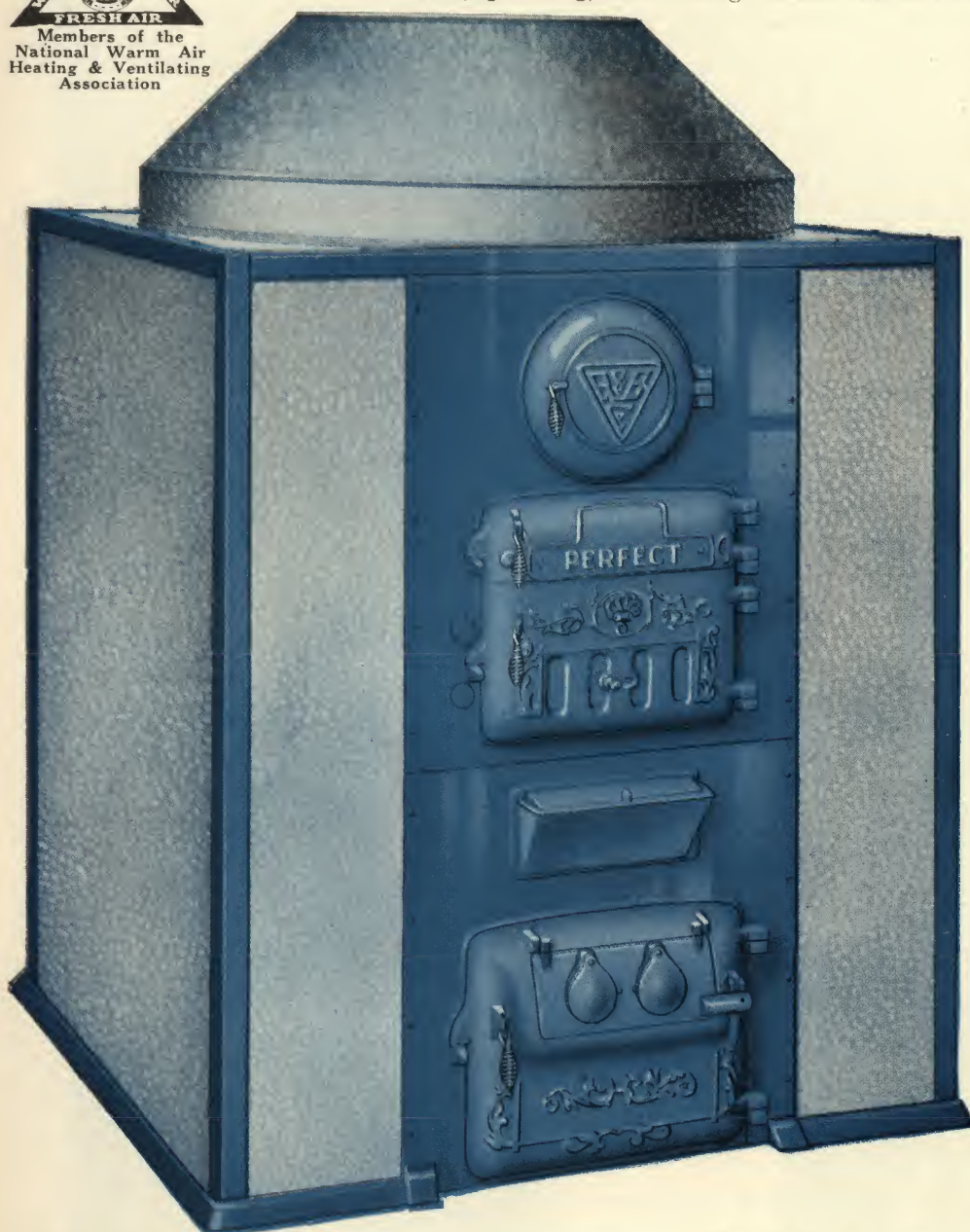
Other Richardson & Boynton Co. Products—"Richardson" Boilers Pages 380-383; "Perfect" Ranges Page 412; Tank Heaters Page 407



The "Perfect" Square Cased Warm Air Heater

Modern beauty for the modern Cellar!

Color—rich, sparkling, scintillating—makes this new heater the last word in design.



Brighten your cellar with a "Perfect" Square Cased Enamelled Warm Air Heater. It will really add another room to the house by making the basement attractive enough for a card room, billiard room or den.

The "Perfect" Square Cased Heater embodies all the time tested, proven principles of warm air heat that have proven so successful in the home-heating equipment of Richardson & Boynton Company.

Finish

The "Perfect" Square Cased Heaters are finished in blue enamel. The enamel parts are easily kept clean by wiping with a damp cloth. The enamel is really a porcelain finish fused on the iron at a very high heat and will not chip or crack under hard usage.

Construction

Base: The 12-inch straight side base, made in one piece is heavy in construction and provides a substantial support for the heater.

Grate Bars: Four triangular revolving grate bars which shake in pairs.

Firepot: Straight corrugated heavy one or two pieces firepot, 12 inches high which is self cleaning.

Body: High, heavy-rubbed body with proper allowance for complete combustion of fuel.

Radiator: Large steel or cast iron radiators with long flue travel.

| | 2027 | 2227 | 2427 |
|--|------|------|------|
| Diameter Firepot, inches | 20" | 22" | 24" |
| Width Across Front | 40" | 44" | 48" |
| Depth from Front to Back | 38" | 42" | 46" |
| Height of Front | 50" | 50" | 50" |
| Capacity in Square Inches of Heat Pipe | 380 | 470 | 570 |



For further details and literature, write to:

RICHARDSON & BOYNTON COMPANY

New York City
and Utica, N. Y.

"Perfect" Positive Heaters

The "Perfect" Positive is a heavy, durable heater which will insure your comfort and health with true economy.

70 Degrees in Zero Weather Guaranteed

Because Richardson & Boynton Company sells winter comfort rather than merely heating equipment, it guarantees under bond, that every "Perfect" Positive Heater will produce 70 degrees of heat in every room even in zero weather provided its engineers are permitted to verify heater and pipe sizes, register location, etc.

Construction Features

The reasons for the marked superiority of the "Perfect" Positive are many.

The ability to get the greatest heat out of the least fuel is due to the straight side fire pot with its complete bed of red hot coals and the large combustion chamber or body above the fire where the gases of the fuel become thoroughly consumed.

The exceptional efficiency in delivering heat to the rooms is the result of the specially designed heavy corrugated iron flanges which surround the body and fire pot of the heater and extend up through the radiator. These flanges give the "Perfect" Positive four and one-half times more heating surface than the ordinary heater.

The ashpit is high and each heater has four "Perfect" triangular revolving grate bars which work in pairs of two. The firepot is heavily corrugated. Either a cast iron or steel radiator may be supplied.

Properly humidified warm air is insured by an automatic humidifier which will never run dry.

The Most Profitable Investment

Whether you value most, the satisfaction of having your home cozy and comfortable on the coldest days, or the advantage of having a heater that requires attention only at long intervals or the longer life and lower operating cost, a Richardson "Perfect" Positive Heater will return dividends in fuel saving, comfort and health which will prove it the most profitable investment you could make with heating apparatus.

"Perfect" Pipeless Heaters

The "Perfect" Pipeless Heater insures heat at low cost as it is the lowest priced central heating system that can be purchased.

The "Perfect" Pipeless Heater is most economical to run due to its correct design and construction.

The "Perfect" Pipeless Heater is clean, as there are only three deep cup joints which are thickly cemented. Large clean-out doors are placed in the casings, so that the heater may be cleaned whenever necessary.

The "Perfect" Pipeless Heater needs the minimum of attention, there is no danger of letting the fire out of the system for there are no parts to freeze.

The "Perfect" Pipeless Heater is ideally suited for bungalows, and for houses where the circulation of air is reasonably free. Also for stores and churches and as an auxiliary heater for large residences.

More Air Warmed and Less Coal Burned

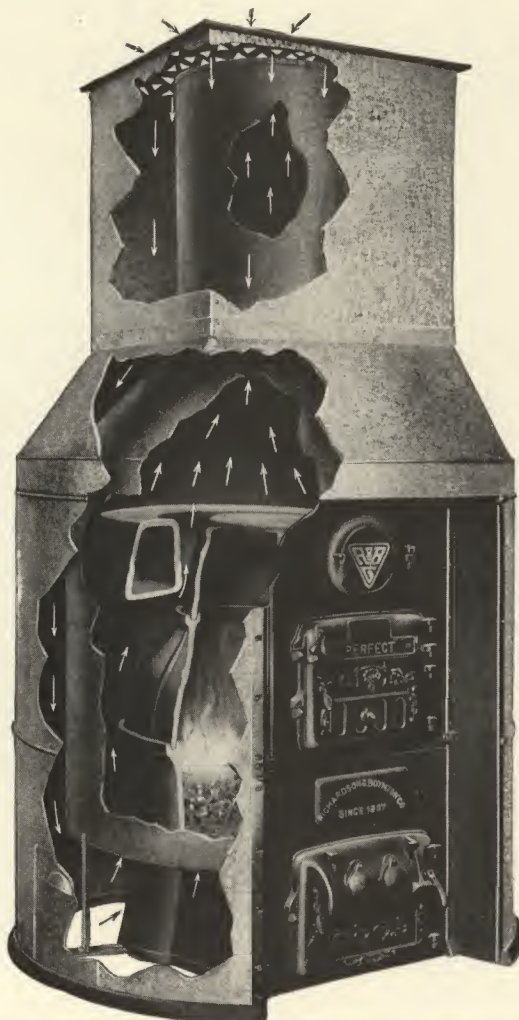
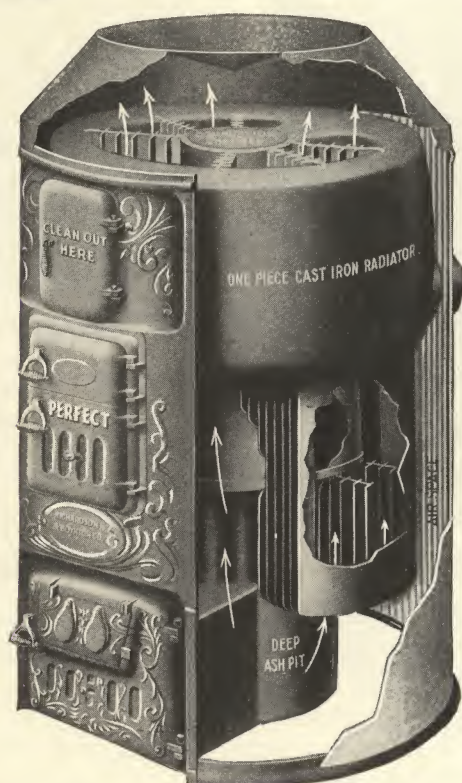
The air chambers, or passages of the "Perfect" Pipeless Heater are about one-half greater in size than those of other pipeless heaters. This enables the "Perfect" to give much more heat than other pipeless heaters and with much less coal. The air comes down through the big outer chamber and up through the inner chamber. There is no rush of air causing drafts, but a slow and even circulation of heat throughout the house.

Construction

The same heavy construction and good workmanship and the same exclusive features of our larger heaters are found in the "Perfect" Pipeless Heater. This correct design will bring health and happiness to your home on cold winter days. The real test of a good heater.

Sizes

The "Perfect" Pipeless Heater is made in six different sizes with firepot dimensions of from 16 to 26 inches and with cubic feet capacity of from 6,000 to 40,000.



For further details and literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
UTICA, N. Y.



The End of the Search

LV CARROLL



THE ultimate choice—a home with “Perfect” heat. And a “Perfect” warm air heating, ventilating and cooling system assures the ultimate in heating science today. The proven principle of warm fresh air, correctly humidified, is carried out to its highest development in the Richardson & Boynton gravity and forced air re-circulating systems. Either type is a sure guarantee of high resale value for the modern home.

Richardson & Boynton Company manufactures every type of warm air heater. There is among them a style and size exactly suited to your own needs. Complete and unbiased information will be promptly sent you upon request.



For further details and literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
UTICA, N. Y.

GILT EDGE WARM AIR FURNACES

Manufactured by
R. J. SCHWAB & SONS COMPANY
 283 Clinton St., Milwaukee, Wis.



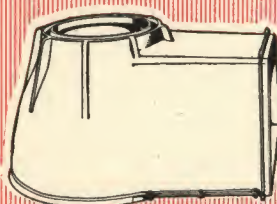
Member of the National
 Warm Air Heating & Ven-
 tilating Association.



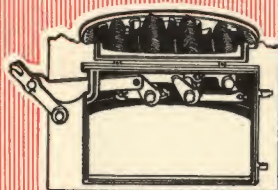
Gilt Edge "500" Series
 Guaranteed for a Lifetime



Two Piece All Cast
 Radiator



Ribbed Combustion Dome



Gilt Edge Patented Anti Clinker
 Bar Grates
 (In Dumping Position)



Typical Gilt Edge
 Double Contact
 Sealed Joint—Ab-
 solutely Gas and
 Smoke Tight



Ribbed Straight Side Firepot



One Piece Base Plate

Products

Gilt Edge 500 Series Furnaces
 Gilt Edge Fireside Furnaces
 Gilt Edge Recirculator Systems
 Gilt Edge Three Way Systems
 Gilt Edge Room Heaters

History

In 1876, Mr. R. J. Schwab, the founder of the company, then a young man with little capital but great ambition, and a capacity for hard work, opened a small foundry. His thorough knowl- edge of foundry practice, after a few years, established a reputation for his products, and from then on the business grew steadily.

Nineteen hundred and twenty-eight marks the Fifty-second consecutive year in business. To-day, on the same site se- lected for the first small shop, stands a modern establishment given over exclu- sively to the manufacture of Gilt Edge warm air heating equipment. A most efficient design for greatest economy, for convenient operation, and for maximum durability, is the natural outcome of these fifty-two years of constructive development in the warm air heating field.

Sound Heating Principles

There is no question but what the basic principles of warm air heating for the home are sound. For a great many years warm air heating systems have been tried under all kinds of con- ditions, and have proved most service- able and reliable. From a standpoint of complete home comfort, and the health of your family you cannot find a better system than a properly in-



stalled Gilt Edge warm air furnace. Humidified air, constantly circulating through the living rooms of your home, provides an exhilarating breathing at- mosphere. All of the fallacies of the old time furnace—the smoke—disagree- able odors, etc., have been eliminated in this modern Gilt Edge series. Here is the system for your new home—the furnace that has been tried and proved better.

Construction Details

The pen and ink drawings, to the left, illustrate some of the major con- struction details of Gilt Edge Furnaces. There's the extra large, all cast radi- ator, cast in two pieces to insure an even thickness of metal throughout— double radial arms prevent sagging of the outer ring. The ribbed combustion dome, scientifically shaped to properly burn the hot gases before they pass up into the radiator above. A two piece, ribbed, straight side firepot of unusu- ally massive construction—the straight sides prevent an insulating accumu- lation of ashes along the side walls, al- lowing for greater efficiency and a clean fire. In connection with the fire- pot a typical Gilt Edge double contact, sealed joint is illustrated. After years of experimenting this type of joint proved absolutely gas and smoke tight, and has been adopted as a standard for all joints used in Gilt Edge con- struction. The proved immunity of the double contact sealed joint to gas leak-

GILT EDGE SPECIFICATIONS

| Heater No. | Area Grate in Sq. In. | Diameter Casing | Height of Castings | Diameter Smoke Pipe | Leader Pipe Capacity Sq. In. | Shipping Weight in Pounds |
|------------|-----------------------|-----------------|--------------------|---------------------|------------------------------|---------------------------|
| 534 | 226.98 | 42" | 51" | 8" | 436 | 1075 |
| 537 | 314.16 | 46" | 54½" | 9" | 564 | 1250 |
| 540 | 415.47 | 50" | 58" | 9" | 716 | 1600 |
| 545 | 530.90 | 57" | 60" | 10" | 884 | 2000 |



For further details and literature, write to:

R. J. SCHWAB & SONS COMPANY

283 Clinton St.
 Milwaukee, Wis.

GILT EDGE WARM AIR FURNACES

Manufactured by

R. J. SCHWAB & SONS COMPANY
283 Clinton St., Milwaukee, Wis.



age, allows us to unhesitatingly recommend the use of an oil burning unit in Gilt Edge furnaces. Note the Gilt Edge patented Anti-clinker bar grates, and the roomy ash pit opening. The grates in any type of heating system are subjected to unusual wear and tear. It is not the actual weight of the fuel in the firepot, but the strains present in shaking and the quick changes in temperature that demand rugged grate construction. The Gilt Edge grate is similar in design to those used in locomotive boilers, built to withstand terrific punishment. A simplified method of hanging makes it an easy matter to replace burned out or warped grates. The one piece base plate keeps the Gilt Edge Furnace and casing in perfect alignment at all times. This feature is fully appreciated by installers particularly.

The Gilt Edge Guarantee

Some of the unusual Gilt Edge construction details have been explained, but we have one feature—an exclusive Gilt Edge feature—which makes it almost unnecessary to stress quality of construction. We are speaking of the Gilt Edge Guarantee. An attractive plate is permanently attached to the upper front of each Gilt Edge Furnace, guaranteeing every casting against defects in workmanship and material—not for five, ten or twenty years, but for a lifetime. This guarantee is un-

usual—nothing like it has ever been attempted in the warm air heating trade. Our years of experience—our strict standards of quality allow us to anticipate the lasting qualities of our products as evidenced by this straight from the shoulder assurance of the durability of Gilt Edge Furnaces.

A Size and Style of Furnace to Fit Every Need

Gilt Edge Furnaces are manufactured in two styles. The Gilt Edge 500 series has been explained in detail. The Gilt Edge Fireside series embodies the same high quality of workmanship and materials, but is designed to meet the contractor's demand for a thoroughly efficient furnace at a price. This series is guaranteed to the user for ten years of service.

The Gilt Edge Recirculator, illustrated to the right, serves the same purpose as the old fashioned pipeless. In homes adapted to this type of installation or in stores, warehouses, etc., the recirculator will prove a very satisfactory heater.

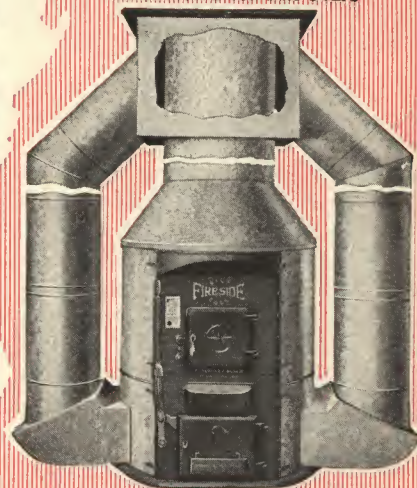
The Gilt Edge Three Way offers advantages over the recirculator because of the flexibility of the cold air returns. The cold air registers can be placed for most efficient service regardless of the position of the central warm air register. This type of system allows for a more even distribution of heat through a two, three or four room building.

Write for Literature

Don't definitely decide on the kind of a heating system you will have until you have investigated Gilt Edge heating equipment. Our dealers are located in all of the larger cities throughout the Middle West—write for the name of your local installer.



*Gilt Edge Fireside
Guaranteed for Ten Years*



Gilt Edge Recirculator

GILT EDGE FIRESIDE SPECIFICATIONS

| Heater No. | Area Grate in Sq. In. | Diameter Casing | Height of Castings | Diameter Smoke Pipe | Leader Pipe Capacity Sq. In. | Shipping Weight in Pounds |
|------------|-----------------------|-----------------|--------------------|---------------------|------------------------------|---------------------------|
| 619 | 176.61 | 38" | 44¾" | 8" | 349 | 800 |
| 621 | 226.98 | 42" | 49½" | 8" | 438 | 950 |
| 624 | 314.16 | 46" | 51" | 9" | 564 | 1075 |
| 627 | 415.47 | 50" | 53½" | 9" | 700 | 1350 |



Gilt Edge Three Way



For further details and literature, write to:

R. J. SCHWAB & SONS COMPANY

283 Clinton St.
Milwaukee, Wis.

Waterbury SEAMLESS Furnace

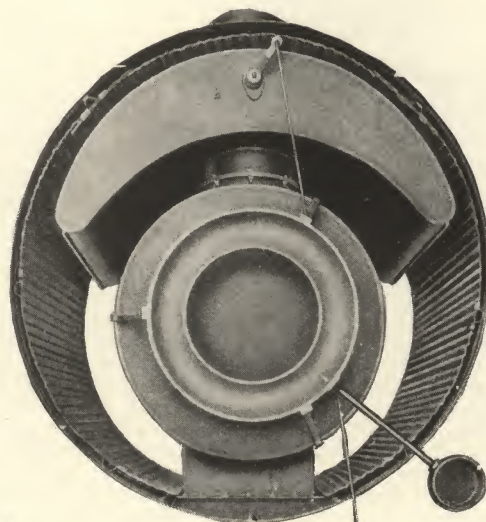
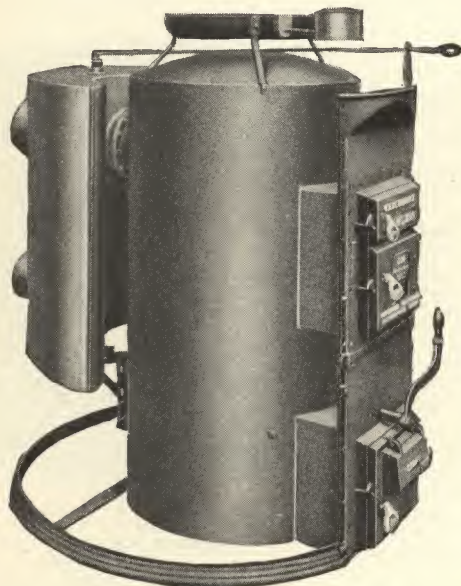
Reg. U. S. Pat. Office

CLEAN
Warm Air Heat

Manufactured by
THE WATERMAN-WATERBURY COMPANY

1125 Jackson St., N. E., Minneapolis, Minnesota

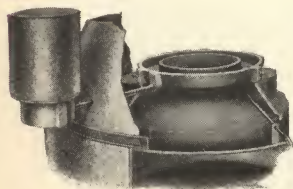
WATERBURY
SEAMLESS FURNACE
REG. U.S. PAT. OFF. PIPE OR PIPELESS



No dust, smoke, oil smells or coal gas can ever escape from the seamless, heavy welded steel body and radiator of the Waterbury

CLEAN, comfortably moist, warm air heat—that is what every Waterbury owner enjoys. This furnace is permanently dust-tight and gas-tight. The body, shown above, is made of the heaviest steel used in furnace construction.

Steel is stronger, more durable, cannot crack and transmits heat quickly. The entire body of the Waterbury is welded into a single, solid, sealed piece. No cement, no calking, no rivets, no cast iron joints. It is utterly impossible for dust, soot, smoke or coal gas to escape and go up the warm air pipes. Even the front of the furnace is welded to the feed and the ash chutes—an exclusive Waterbury feature.



Moist, Balmy Warmth

due to the really efficient Waterbury Humidifier, another exclusive Waterbury innovation. It is flat and

shallow, with a much larger evaporating area than any water pan. And it is placed, not in the front, but in the hottest part, right above the fire dome, for greater capacity and even distribution to all the rooms.

Semi-automatic; the light galvanized tank is easily removed for filling, when a constant level of water in the humidifier is maintained without further attention. Can be made fully automatic at low extra cost, by connecting with city or pressure water supply.

Seamless Steel Radiator Reduces Fuel Bills

You know how hot a stove-pipe or old style furnace pipe gets—often a sizzling, cherry red. Think of the heat that pours up the chimney, utterly wasted. In the Waterbury such heat is saved and used.

As the flames and heated air come out of the furnace they travel down and around through the Waterbury radiator by means of baffle plates. Nearly 15 feet of extra fire travel are thus provided. The radiator is intensely heated, and as it is entirely within the casing, it has the effect of a second furnace for heating the home without extra fuel.

A direct draft damper is provided for use when firing or in hurrying the fire. This radiator is made so that it is easy to keep clean.

You'll appreciate a Waterbury especially in biting cold, below-zero weather! When other householders have to keep shoveling fuel almost steadily into their roaring, ravenous furnaces or boilers, the Waterbury maintains a pleasant, warm temperature with a moderate fire.

Finished Workmanship—Durable Materials That Give Many Extra Years of Furnace Service

Careful, painstaking work is evident in every detail of the Waterbury. The welding is done by skillful experts who make the welds stronger than the steel itself. In every particular the Waterbury is built to outlast its 10-year guarantee by many years.

Complete Engineering Service

Home builders are invited to use this helpful service. Merely send in your plans or a sketch showing size and location of rooms, windows and doors, and locations preferred for registers. Our Engineering Department will then furnish promptly complete blue prints showing correct installation according to the Standard Code.



For further details and literature, write to:

THE WATERMAN-WATERBURY CO.

1125 Jackson St., N. E.
Minneapolis, Minn.

HOME BUILDERS CATALOG

WISE Furnaces

Made by

The WISE FURNACE COMPANY

Akron, Ohio

**New
WISE
Improve-
ments**

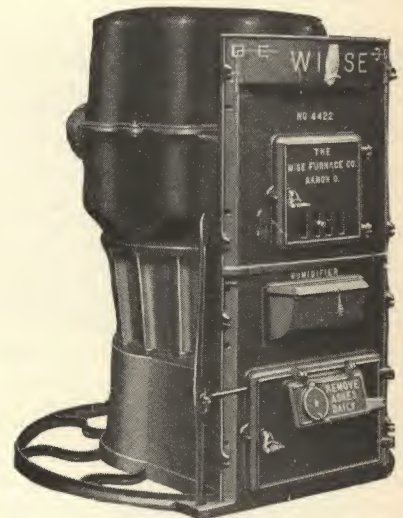
Improved Construction of Wise Open Dome Furnace The New 40 Series

Notwithstanding the prestige the old construction commanded the new Wise improvements make it still better.

NEW CELLULAR ONE-PIECE FIREPOT, heavily constructed. A series of air cells which extend from bottom to top enables air to be pre-heated before entering above and into the fuel. This supplies a continuous and evenly distributed air blast providing complete combustion.

ELBOW SHAPED FLUE COLLAR ON INSIDE OF RADIATOR TURNED UP so all of the heat within the radiator must follow the castings to the top before entering flue.

Other features too—see our latest circulars illustrating and describing construction in detail.

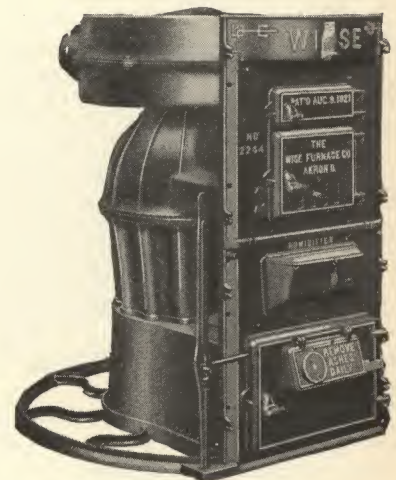


New Wise Ideas Improve Return Flue Radiator Type The New 20 Series

The entirely new and **PATENTED Radiator**, in this furnace is something out of the ordinary. The radiator is constructed to eliminate the objectionable dirt collecting and clean-out features of the ordinary return flue types.

The feed chamber and the top radiator are so constructed as to allow communication between them which brings the opening of the fire flues of the radiator directly into the feed chamber, making the flues readily accessible for cleaning through the upper feed door. The dirt falls directly into the firepot, eliminating the necessity of taking the dirt out by means of a narrow neck passage. This is a wonderful advantage to the owner. An easy cleaning radiator means that it will be kept clean, and a clean radiator means increased efficiency.

Made in various sizes to meet every requirement.



**New
WISE
Ideas**

The WISE Practical Steel Furnace

Wise dealers wanted a Wise Steel Furnace—a furnace high in quality—up to the high standard set by the Wise Trade Mark for over 20 years. So we designed this Wise Steel Furnace—a furnace that has not only guaranteed high quality but practical, exclusive and worth-while features—

THE RADIATOR IS DIFFERENT from any other. Notice the cast iron soot box and clean-out at the bottom which eliminates the weakest point of steel furnace construction.

RIVETED AND WELDED BODY—a strong, durable construction and immense radiating surface.

SPECIAL DESIGN GRATES and **LEVER SHAKER HANDLES**.

There are other features too—write today for full details.



**A
New Steel
Furnace**



For further details and literature, write to:

THE WISE FURNACE COMPANY

Warm Air Registers and Radiator Enclosures

Made By

THE HART & COOLEY MFG. CO.

New Britain, Conn.

New York: 501 Fifth Ave.
Phila.: Real Estate Trust Bldg.
Chicago: 61 W. Kinzie St.
Western Warehouse: Chicago



Members of the National
Warm Air Heating &
Ventilating Association



The Air Capacity Line

Products

Steel Floor, Baseboard and Sidewall Warm Air Registers; Cold Air Faces and Intakes; Ceiling Ventilators; Pipeless Furnace Gratings; Steel and Bronze Ventilating Grilles; Radiator Enclosures and Shields.

Advantages

Amid many fine points of finish and mechanical excellence, two features stand out clearly: one is the patented Pinched-back Fretwork common to all H. & C. floor goods; the other is the Bar-type construction of the sidewall and baseboard registers. These refinements provide a degree of air capacity unapproached by any other form of design. Besides effecting greater neatness in the rooms, this unusual free air capacity represents an important saving, for registers smaller than usual may be used with equal efficiency.

Warm air heating, installed according to the Standard Code, is admitted by engineers to be without an equal for the average residence. The initial cost is less, the heat is more responsive and easier to control, there is no danger from freezing, and the humidity is better. You enhance these advantages to their utmost when you specify H. & C. equipment.

Standard Finishes

The following are carried in stock: Black japanned, white japanned, oxidized copper, brushed brass and nickel. Floor registers and No. 255 Cold Air Faces are carried in stock in oak finish.

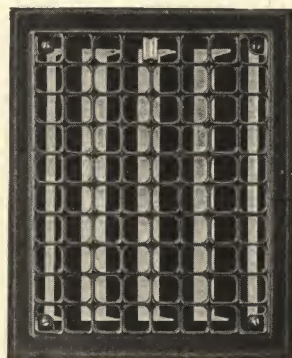
This company can furnish any electroplated finish to match hardware as follows: electroplated light bronze, statuary bronze, polished brass, copper (not shaded), dead black and various shades of sanded finishes.

Lacquered finishes, which are less expensive than electroplated finishes, can be furnished in bronze, brass and oxidized copper.

Floor Register with Pinched-Back Fretwork

(Patented)

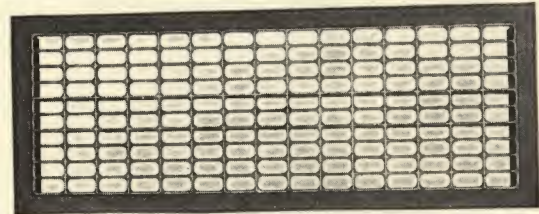
Distinctive because of the beautifully rounded pinched-back fretwork of the face. This patented process results in maximum openings for the free flow of air, greatly increased strength and striking beauty of design. Rugged in construction, rigidly reinforced, unbreakable. Louvres swinging on solid trunnions insure permanent ease of operation. Made in all standard sizes from 4 x 6 to 38 x 42.



Class No. 200

Cold Air Face with Oblong Holes

(Patented)

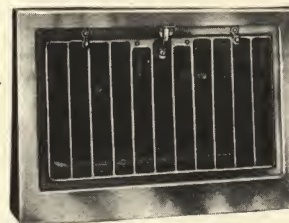


Class No. 255

This face is made in oblong hole design to facilitate the free flow of return air to the furnace. Adequate strength is assured by heavy braces permanently spot-welded to the face.

Wide margins overlap the opening—no counter-sinking or fastening in place is necessary. Stock finishes—oak, black japan, oxidized copper. Low list prices compare favorably with cost of less substantial, less efficient, wood cold air faces. Made in eleven standard sizes from 12 x 14 to 24 x 30.

Vertical Bar Baseboard Register



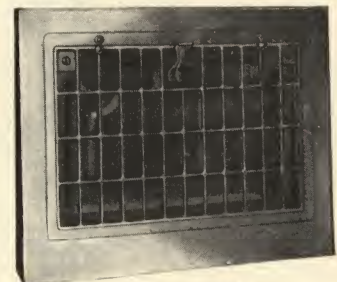
Class No. 170

any other design. Advantages: Less conspicuous but more efficient registers; decreased costs. In all standard sizes from 8 x 10 to 12 x 14.

For horizontal sidewall type (above baseboard) to match No. 170 series, shown above, specify No. 370, made in sizes 8 x 10 and 8 x 12 only. For baseboard cold air intakes to match No. 170 series, specify No. 657 or 607. See H. & C. Catalog.

Plain Lattice Baseboard Register

For those who prefer a plain lattice baseboard register, the No. 150 series is offered. This series has the same rigid one-piece frame as the No. 170 series, but has face perforated in oblong hole design. The face is removable by quarter turn of locking buttons—no screwdriver is required. Made in standard sizes from 8 x 10 to 12 x 14.



Class No. 150



For further details and
literature write to:

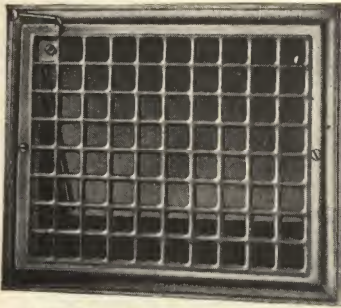
THE HART & COOLEY MFG. CO.

New Britain,
Conn.

H. & C. Registers and Radiator Enclosures (Cont'd)

For horizontal sidewall register to match No. 150 series, specify No. 360, made in sizes 8 x 10, 8 x 12 and 9 x 12 only. For baseboard intakes to match No. 150 series, specify Nos. 655 or 605.

Vertical or Horizontal Sidewall Register



Class No. 345 Set Horizontal

Made in sizes 8"x10", 8"x12", 9"x12" and 10"x12".

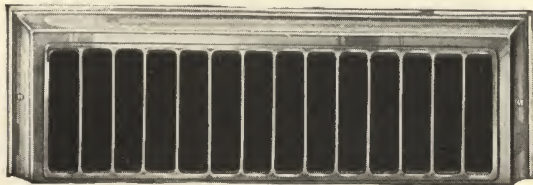
This register is shown here in horizontal position, but may be readily reversed for vertical setting simply by removing two screws.

The operating device is so made that when register valve is closed the handle lies flat against register.

Vertical Bar Sidewall Register

The No. 370 convex faced sidewall register, made only in sizes 8 x 10 and 8 x 12, for horizontal setting, is of the vertical bar type matching our No. 170 and 190 series baseboard registers.

Baseboard Cold Air Intake

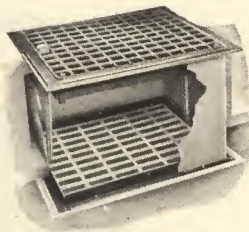


Class No. 657

An intake that is exceptionally efficient, due to its large air capacity. The openings extend close to the floor and the edges fit tight to the baseboard. Two round head screws packed with each intake. Made in 4 x 14 and 4 x 30 sizes.

Adjustable Ceiling Ventilator

Made to carry surplus heat from a lower to an upper room. Ventilators are complete, ready for installation—each consisting of one black floor register and one white face attached to a tin box, which is adjustable from 5 to 12 inches in depth. Easy to install. Allows maximum heat to pass through. Packed one in a carton, fully assembled, but collapsed to 5 inches. Made in all standard sizes from 8 x 10 to 12 x 14.



Class No. 2250

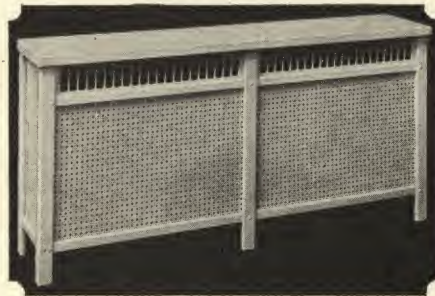
Adjustable Sidewall Ventilator

Class No. 2550

This ventilator is designed to increase the efficiency of a pipeless furnace installation. May be placed in any partition. Complete in itself, requires no piping; easily installed. Faces are white japanned; box is telescopic, adjusting from 4 to 8 inches. Made in 6 standard sizes from 8 x 24 to 12 x 30.

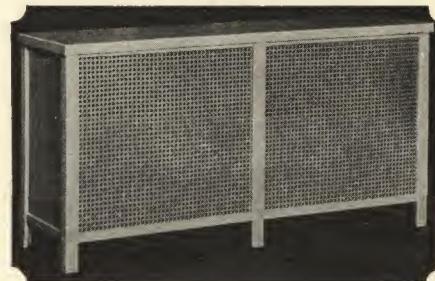
Radiator Enclosures

Many advantages recommend the modern radiator enclosure; principal of which are cleanliness and beauty. By directing the heat out into the room instead of allowing it to pass upward to the ceiling, the enclosure is the means of protecting walls and draperies from the smudginess common to uncovered radiators.



"Thermalno"

Radiator enclosures, properly designed, fit artistically into the interior decorative scheme, and at the same time furnish additional pieces of beautiful and useful furniture. For more complete details of their advantages, see page —

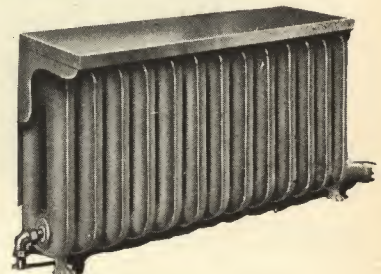


"Berkshire"

H. & C. Radiator Enclosures are made in several styles, two of which are shown here. They are made for all sizes of radiators, and are finished in American Walnut and Red or Brown Mahogany; also in flat colors such as White, Ivory, Cream, Buff or Antique Bronze. Being made of steel, they will last a lifetime under normal usage.

Bracket Type Radiator Shield

The radiator shield, while not quite so artistic as the enclosure, protects the walls and draperies. The type shown here is made for all radiators and in any desired colors.



For further details and literature write to:

THE HART & COOLEY MFG. CO.

New Britain,
Conn.

Mueller Registers, Grilles and Ventilators

Manufactured by
L. J. MUELLER FURNACE CO.

Established 1857

General Offices
297 Reed Street
MILWAUKEE, WIS.
FOR BRANCH OFFICES, See Page 350



Products

REGISTERS, GRILLES and VENTILATORS.

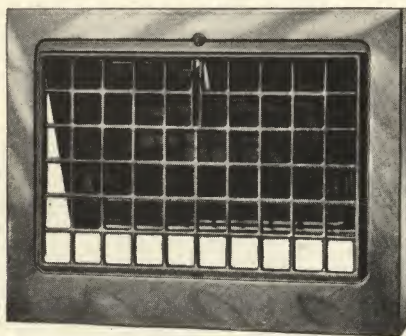
For all-cast Warm Air Furnaces, pipe and pipeless types; combination wood and coal; wood burning only; Direct Fired Forced Air Unit Heaters; Horizontal Tubular Heaters for churches and schools; steel furnaces; see page 350.

For Gas-Era gas-fired Warm Air Furnaces and Boilers; also gas-fired and coal-fired Furnacette (Cabinet Heater), see page 367.

For Steam and Hot Water Boilers, Hot Water Supply Boilers and Combination Hot Water Supply Boiler and Garbage Burners, see page 379.

Wrought Steel Baseboard Registers

Neat in appearance, durably constructed, quickly and easily installed, simple and positive in operation.

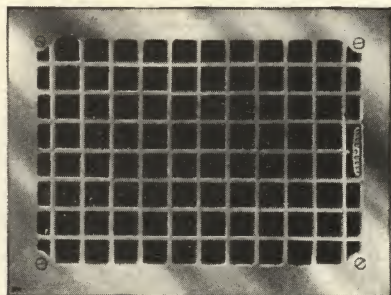


Wrought Steel Baseboard Register

Made in two styles, with round and square corners, with solid one-piece frame and removable grille. No riveted or welded corners. Plain lattice design insures maximum free air area. Carried in stock in 6 standard sizes, in a large variety of finishes, all highly polished.

Floor Registers

Plain lattice design, semi-steel construction, boxes and valves of sheet steel, faces cast of semi-steel. Exceptionally strong and unusually neat in appearance.

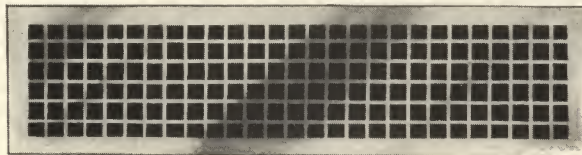


Floor Register

Carried in all standard sizes and finishes. Can be made to special order in any size. Write for prices.

Cast Iron and Steel Grilles

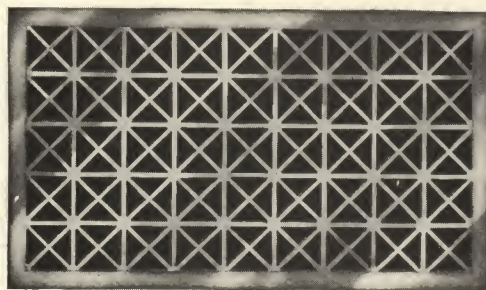
Carried in stock in some standard sizes. Can be made to order in any size and finish. When ordering, specify whether dimensions are size of opening or extreme size of grille. Can be furnished curved if desired.



Cast Iron or Steel Grille

Special Design Grilles

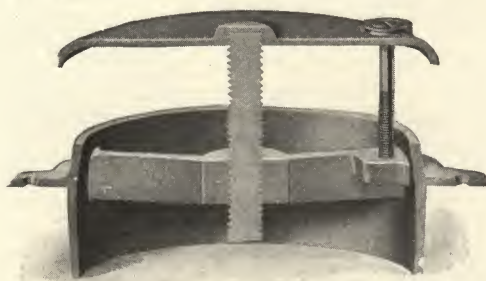
Below is shown one of many special design grilles that we manufacture in cast iron, brass or bronze. Send specifications for any grilles desired, for prices.



One of Many Special Design Grilles

Mushroom Ventilators

For use in schools, theatres, churches and public buildings. Easily adjustable to distribute an equal volume of air.



Perspective of Mushroom Ventilator

Advantages

Positive locking feature, no depression in cap to collect dirt, no set screw projecting; easy, quick and permanent adjustment. Five sizes: 4, 5, 6, 8 and 10 inch diameter.

Send for complete illustrated catalog of our complete line of registers, ventilators and grilles. Prices on special sizes of registers and grilles, also special designs will be quoted on application.



For further details and literature, write to:

L. J. MUELLER FURNACE CO.

297 Reed St.
MILWAUKEE, WIS.

No Streak Guaranteed Wall Registers

Made by

Rock Island Register Co.

Rock Island, Ill.



"No Streak" Register:

This is the only warm air register guaranteed to prevent streaking of the walls (see Guarantee Tag below)—a feature especially valuable because it saves the house owner from \$20 to \$27 annually on decorating expense.

Efficiency:

They comply with every requirement of the Standard Code on Registers and Furnace installation by having full 100% area through boot or pipe connection and through the Grille.

Construction:

The register boxes are made of double galvanized iron with tin linings, making a dead air space for insulation, which adds to the durability of the register as well as increasing fire protection. In addition, the inside of all Boxes are finished in Duco Green which harmonizes with all interiors and makes a very attractive appearance.

Finishes:

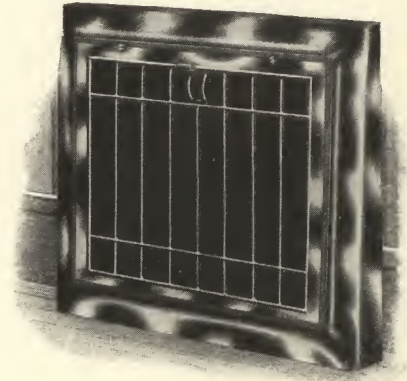
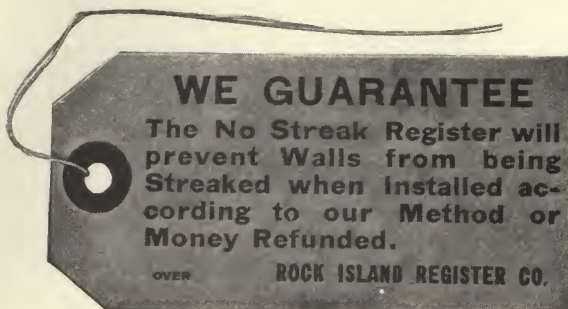
Rock Island registers are finished in the most modern and durable manner known to the electro-plater's art to match all prevailing hardware finishes.

Standard finishes are electro-plated Oxidized Copper, Brush Brass and Nickel. All special sanded finishes will be made to match hardware upon request.

The enamel finishes are high-gloss, baked-in Black, and a durable, non-changing White.

A very attractive and moderate priced finish is available in our Lacquered Bronze paint finish to correspond in color to the standard electro-plated finishes.

**This Guarantee Tag is attached
to every NO STREAK Register.**

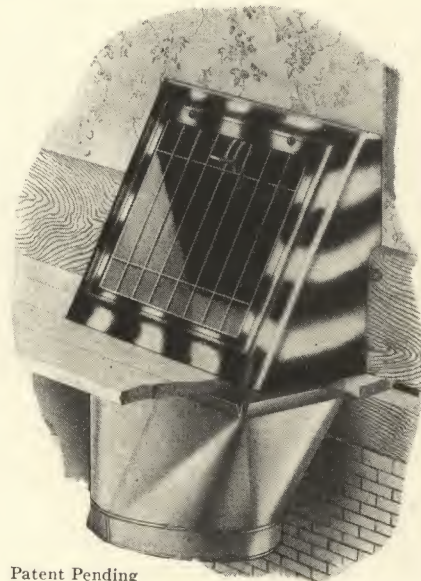


"OUT-O-WALL" Register:

The most satisfactory and efficient wall register for installation in houses already built or those where the construction will not permit of the usual type of wall register.

The register and double wall box are a unit that is installed by simply cutting the baseboard and a hole in the floor against the wall. This installation saves approximately 90% of the usual labor necessary to cut and install ordinary wall registers, and makes an attractive and efficient job.

The measurements and openings for "OUT-O-WALL" Registers correspond with those of "NO STREAK" Registers (see opposite page) making pipe fittings interchangeable.



Patent Pending

You will be proud to show NO STREAK Registers to your friends and prospective Buyers. Catalog, Heating Plans and Estimates will be furnished on your request.



For further details and
literature, write to:

ROCK ISLAND REGISTER COMPANY, Rock Island, Ill.

Registers, Grilles and Radiator Cabinets

Made by
TUTTLE & BAILEY MFG. CO.

Established 1846

441 Lexington Avenue, New York

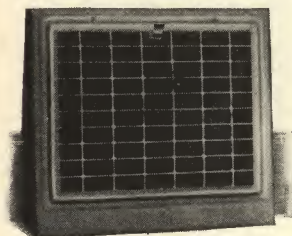
CHICAGO
1123-29 W. 37th St.

BOSTON
36 Portland St.

KANSAS CITY
704 E. 18th St.

TUTTLE & BAILEY
SUPER-REGS

Baseboard Registers. Styles 902 and 402. All-Steel (Single Valve)

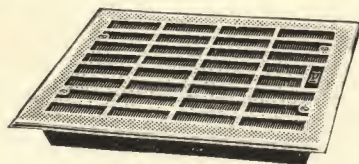


Style 902

The ultimate in baseboard registers, introduced to match, in design, the immensely popular T&B "Cobble" Register and "Cobble" Cold Air Face, both shown below. Aside from possessing every modern improvement in warm air registers, these new offerings embody many distinctive, practical advantages, such as additional face sizes and throat depths to fit all standard stackheads made. Style 902 is a two-piece register, made entirely of heavy gauge open-hearth steel. Flange is formed in one piece and face fits snugly, preventing leaks and streaky walls. Center Fan movement (patent claims allowed) is easily operated and absolutely positive. Style 402 is exactly the same as 902, with the single exception that flange and face are made in one piece, for those who so prefer it. Both registers, because of the highly artistic oblong mesh, provide EXCESS AIR CAPACITY and the strength required for everyday use.

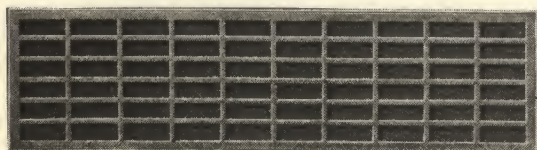
"Cobble" Floor Register. Style 80 Semi-Steel (Multi-Valve)

The "Cobble" idea in registers is an exclusive T&B creation. The tiny "Cobbles" cover entire face, providing a raised surface, which not only prevents foot-slipping, but also eliminates over-heating. Wear, coming only on the "Cobble" tips, does not reach the register finish on the recessed surface, so that "Cobble" register finishes last indefinitely. Style 80 register has many other interesting features. Floor recessing unnecessary because of the rolled edge and narrow rim, which make snug and even fit. Standard sizes—Black japan and Tanbo Antique (special T&B neutral color) finishes in stock. Other finishes furnished on special order.



Style 80

"Cobble" Cold Air Face (Intake). Style C Tanbo Antique Finish



Style C "Cobble" Cold Air Face

Nothing more practical, more economical for installer and user, has ever been introduced than this "Cobble" Cold Air Face. Popularity increases daily. Style "C" Cold Air Face, being cast iron, is by far stronger, more durable than stamped steel or wooden faces. The rolled edge and narrow rim save installer time and labor because floor recessing is eliminated. Fits snugly and evenly. Oblong mesh assures maximum air flow. Kept clean easier, as face is removable account of not being attached. Staining, painting or varnishing unnecessary, due to Tanbo Antique finish, which harmonizes with all color schemes. Standard sizes.

Radiator Cabinets. ALL METAL, Luxuriously Finished.

The building trade has definitely acknowledged that radiator concealment is good business. It is part of the modern essentials in interior decoration. Reduces greatly resistance in selling and renting apartments and small homes. Many beautiful and highly artistic models are offered in Tuttle & Bailey Radiator Cabinets, suitable for high, low or regular size radiators. These cabinets are made entirely of a high-grade furniture metal and in the finished form are scarcely distinguishable from ex-



Raleigh Model

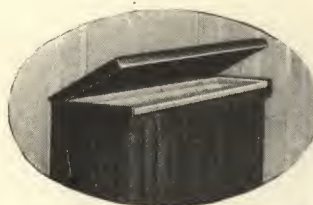


Cabinet with Rod-Type Grille

pensive furniture. Furnished in 12 standard wood-reproduction finishes, or any color to match sample; also supplied in prime coat. Grilles may be Steelcane, stamped or sturdy rod-type, as desired. Variety of artistic grille ornaments for those who do not prefer plain grille facing. Humidifying pan, adjustable feet, hinged cover for varying heat flow, and other valuable features are offered in Tuttle & Bailey Radiator Cabinets. Send for photos of typical installations.

Radiator Shields. ALL-METAL—Any Finish

Economy is truly effected in these radiator shields. By deflecting dust-laden heat currents which rise straight upward from exposed radiators, walls, ceilings and interior decorations are kept free from soil, thereby eliminating frequent re-decorating costs. Has humidifying pan and hinged cover. Useful as window seat, console



Radiator Shield Installed



Members of National
Warm Air Heating and
Ventilating Association.

shelf, or for taking the place of end table. Made for all sizes of radiators. Finished in any desired color or supplied in prime coat.



For further details and literature, write to:

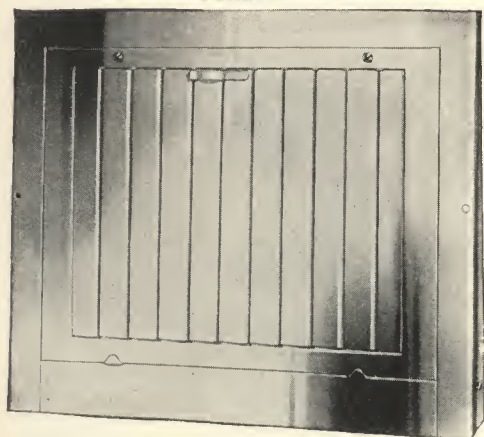
TUTTLE & BAILEY MFG. CO.

441 Lexington Ave.
NEW YORK CITY

WATERLOO WALL AND FLOOR REGISTERS



Patented



The Register That's Better in Every Way

The Waterloo Standard Baseboard Register shown above, is widely recommended by architects, contractors and dealers because it is more attractive in appearance—either open or closed—provides greater air capacity, presents a smoother surface when closed, and is so easy to clean.

It fits all standard stackheads and is interchangeable with other makes of registers which conform to sizes adopted by the Standardization Committee of Register Manufacturers. Made with detachable face or in one-piece register as desired. Easy to keep clean and sanitary, as very little dust can collect on its polished surface. Presents a truly beautiful panel effect when closed.

Easily Removable and an Ornament to Any Interior

The Waterloo Standard Baseboard Register with detachable face (two-piece) or the one-piece Register can be furnished in Black Japan, B Brass Bronze, Dark Bronze, White Japan, Oxidized Copper, Brass, Nickel and Copper.

Sizes for Second Floor, 8 x 10, 8 x 12, 9 x 12. First floor Registers are made to fit 8, 9, 10, 12 and 14-inch pipe, all in above finishes.

Patented



Products

Registers, pipes and all other equipment for the installation of warm air systems of heating. We also manufacture Knox Everlasting Cast Iron Smoke Pipe, Cast Iron Cistern Covers and Coal Chutes.

Waterloo products are well known to the heating trade as having attained a point at which their quality is unquestioned. Built solely for long and satisfactory service with price being given only a secondary consideration, their present large quantity production permits a cost level that renders their use a real economy and an insurance against future annoyance and expense.

Patented

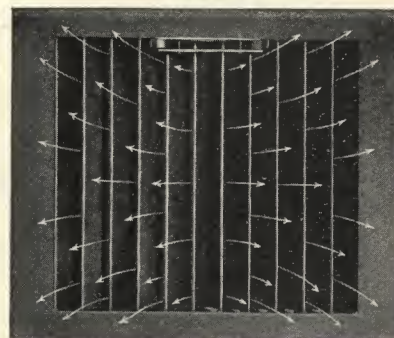


Our illustrated catalogue shows all our products with photographic cuts, sizes and list prices, but our engineering department is at your service to aid you in the solution of any warm air engineering problems that may arise in connection with the type of equipment that we manufacture. Our dealers, also will gladly afford you every aid within their power.

A Real Economy

When you are confronted with problems in the distribution of warm air to the hard-to-reach areas of rooms, you will find an easy solution by the installation of Waterloo Diffusers. These are particularly efficient in forced warm air jobs. The louvers may be set to force air to any angle required. Made also for use in ceilings to throw warm or cold air in four directions. Made up only on order. Not carried in stock. Send your specifications for net prices.

Patented



The installation of Waterloo Diffusers has forestalled many a complaint of inefficient heating. In designing a system "It's better to be safe than sorry."



For further details and literature, write to:

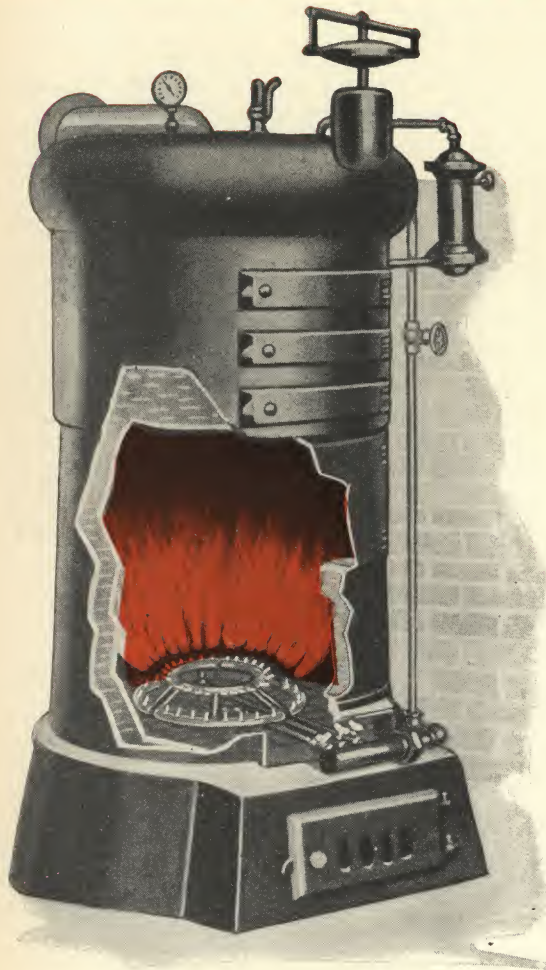
WATERLOO REGISTER COMPANY, Waterloo, Iowa

Member of National Warm Air Heating and Ventilating Ass'n.

BARBER PATENTED JET GAS BURNERS

Convert Any Furnace into a Modern Gas Heater

When you build, buy or remodel a home remember that you can enjoy greatest comfort and convenience and that the house will be free from dirt and soot if you provide for **GAS HEATING** in your furnace or boiler. Be sure to specify **Barber Burners**.



With the advent of gas heating in the home, by the use of the NEW Barber Patented Jet Gas Burner in *any* type of furnace or boiler, many thousands of families took their greatest forward stride toward the elimination of endless toil, limitless dirt and extremes of discomfort.

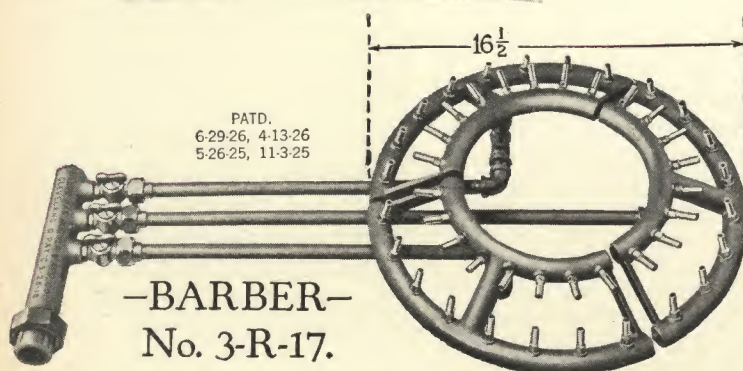
By the combination of luxury and economy, which the NEW Barber Gas Burner represents, *you* can enjoy the same convenience and economy in heating as you do in cooking.

Barber Burner units are quickly and easily installed in any furnace or boiler. And should an emergency arise, they can be quickly removed and your home can be heated with coal. To make the gas heating system most convenient and most satisfactory, the use of a good heat regulator and gas regulating valve is recommended.

The installation of this equipment, *at surprisingly low cost*, will enable you to keep the temperature just as you want it. It automatically warms the house before the morning rising hour and it maintains a uniform, healthful temperature through the day.

No trips to the basement to "tend fires." No shoveling of coal and ashes. No dirt and soot floating through the house. But best of all, the Barber Burner supplies economical heat.

Shown above is the proper installation of a "3-R-17" Barber Burner Unit in round steam or hot water boilers. This type of burner is furnished in various sizes, according to the diameter of fire box and rating of boiler. When you write us or talk with your dealer be sure to supply name, number and name of manufacturer of your boiler or furnace.



See also page opposite and pages 396 and 397 for more complete information concerning Barber Patented Jet Gas Burners.

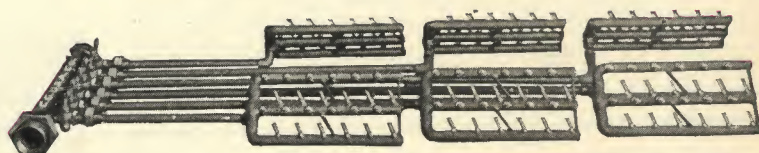
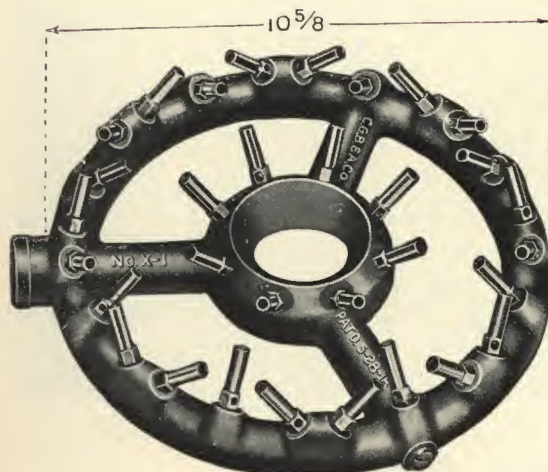
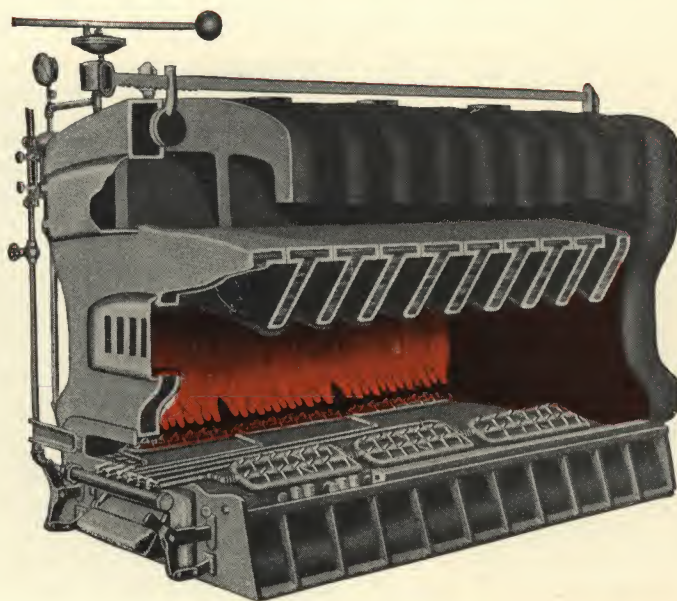


For further details and literature, write to:

The CLEVELAND GAS BURNER & APPLIANCE CO.

BARBER PATENTED JET GAS BURNERS for Every Coal Heated Home

Barber Gas Burners are available for furnaces and boilers of all sizes and styles and for use in homes both large and small.



A 6 Unit "U-24" Barber Patented Jet Gas Burner is illustrated above and is shown as properly installed in an oblong sectional steam or hot water boiler. Each "U-24" burner unit is 14"x7 1/8" and has 12 pairs of jets. The complete burner is but one of many of similar design which are assembled as special burners for various sizes and types of boilers. Depending on size and rating of the boiler, we assemble special burners ranging from 2 to 30 units.

Barber Burners are usually installed through the clinker door opening and are so designed that the flame and intense heat are concentrated to utilize every possible heat unit, thereby obtaining the highest possible efficiency and providing greatest economy.

There's a Barber Burner for *your* home. Installations invariably save their cost during the first year because they are 15% to 25% more economical than the old mixer type burners. Investigate now.

Enjoy real comfort and convenience. Install a Barber Gas Burner in your coal furnace or boiler. See also pages 396 and 397. Send us the manufacturer's name, trade name and number of your heating appliance and we will supply complete information—without obligation.

The CLEVELAND GAS BURNER & APPLIANCE CO.
Burner Specialists

3702-04 Superior Avenue,

Cleveland, Ohio

New Ideal Vecto Heater

Manufactured by

AMERICAN RADIATOR COMPANY

General Sales Offices, 1807 Elmwood Ave., Buffalo, N. Y.

BRANCH SALES OFFICES

Atlanta, Ga.—232 Peachtree St.
Baltimore, Md.—1308 Lexington Bldg.
Boston, Mass.—129-131 Federal St.
Buffalo, N. Y.—374 Delaware Ave.
Chicago, Ill.—816 S. Michigan Ave.
Cincinnati, O.—710 Gwynne Bldg.
Cleveland, O.—1294 E. 55th St.
Denver, Colo.—24th & Blake Sts.

Detroit, Mich.—1344 Broadway
Indianapolis, Ind.—900 N. Senate Ave.
Kansas City, Mo.—906 Davidson Bldg.
Milwaukee, Wis.—1801 St. Paul Ave.
New York City—40 W. 40th St.
Omaha, Nebr.—413 S. 10th St.
Philadelphia, Pa.—25th & Reed Sts.

Pittsburgh, Pa.—337 2nd Ave.
San Francisco, Cal.—4th & Townsend Sts.
Seattle, Wash.—Holgate & Utah Sts.
St. Louis, Mo.—4201 Duncan Ave.
St. Paul, Minn.—Minnehaha & Prior Ave.
Washington, D. C.—4th & Channing Sts.

For Other Products See Pages 374-377, 398

Warmth and Comfort in Every Room for the Usual Cost of Heating One Room

The most scientific heater of its kind ever developed, the new Ideal Vecto Heater actually requires no more fuel to heat the number of rooms it is designed to serve than old style heaters needed for one room. It is a milestone in the rising standard of heating comfort.

How the Ideal Vecto Circulates Its Healthful Warmth

The Ideal Vecto Heater may be likened to an air pump. Air from near the floor level is drawn in through the openings in the base of the Vecto and is heated by an extensive, scientifically designed heating surface. As the air is heated, it becomes lighter and flows upward and outward, carrying warmth and comfort to every room.



Special Construction Insures Cleanliness of Operation

No basement is required for the Ideal Vecto Heater. And as it is intended to go into any living room, it has been especially designed for clean operation. The interior heating body is made in one piece, seamless construction, dust and gas-proof. The contacting surfaces of the doors are machine-ground to a smooth finish that also prevents the escape of dust and gas and the infiltration of excess air.



Most Efficient and Lowest Priced Home Heater of its kind on the Market.

3-C VECTO

Heats 2 to 3 Rooms



5-C VECTO

Heats 3 to 4 Rooms



8-C VECTO

Heats 5 to 8 Rooms



Everlastingly Beautiful

The metal cover of the Ideal Vecto Heater is finished in beautiful grained walnut porcelain enamel. This lustrous finish is permanently beautiful and easily cleaned.

A Size for Every Need at Lowest Cost

In response to public demand for a smaller Vecto to heat two, three, four, or five rooms, two smaller sizes have been developed. It is now possible to select an exact size of the Vecto for the most economical heating of any number of rooms—for more than eight rooms, two or more Vectos may be used.



For further details and literature, write to:

AMERICAN RADIATOR COMPANY

40 West 40th Street
NEW YORK CITY

Mueller Gas-Era Furnaces and Boilers

Manufactured by
L. J. MUELLER FURNACE CO.

Established 1857

General Offices
**297 Reed Street
MILWAUKEE, WIS.**

FOR BRANCH OFFICES, See Page 350
Tested and approved by American Gas Association

Products

Gas-Era gas-fired Warm Air Furnaces and Boilers; also gas-fired and coal fired Furnacette (cabinet heater).

For all-cast Warm Air Furnaces, pipe and pipeless types; combination wood and coal; wood burning only; Direct Fired Forced Air Unit Heaters; Horizontal Tubular Heaters for large churches and schools; steel furnaces, see page 350.

For Steam and Hot Water Boilers, Hot Water Supply Boilers and Combination Hot Water Supply Boiler and Garbage Burners, see page 379.

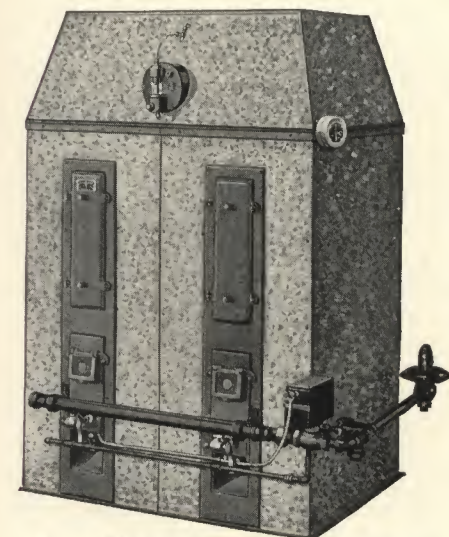
For Registers, Grilles and Ventilators, see page 360.

Gas-Era Gas-Fired Warm Air Furnace

To relieve the home owner of his annual winter burden, we bring the convenience of fully automatic, dependable gas heating, combined with the comfort of circulating healthfully moistened, warm air, within the reach of all, through the Gas-Era Warm Air Furnace.

Gas heating has done away with fuel storage, dirt, labor and attention to the heating system.

Operation is entirely automatic. Electrically operated controls turn on and shut off the gas as required. (Can



No. 2 Gas-Era Furnace with Perfection Air Moistener

also be furnished for manual control if desired.) No gas can flow to the burners unless they are ignited.

Burners operate intermittently as heat is required. Operation is entirely quiet, even when burners are ignited and extinguished.

The Gas-Era Furnace is all-cast construction, of multiple unit assemblage, increased laterally by the addition of sections as required.

Moisture is supplied automatically by the Perfection Air Moistener. As much or as little moisture as desired.

Tested and approved by American Gas Association.

Gas-Era Gas-Fired Boiler

The ideal of comfort without effort is realized with the installation of the Gas-Era Boiler. As much heat as desired, and only when desired, adjusted to changing weather conditions.

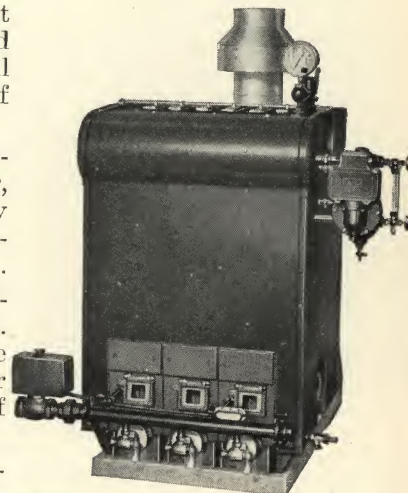
Designed for hot water, steam and vapor heating in all types and sizes of buildings.

Thermostat operates the boiler, maintaining any desired temperature, day and night.

Requires headroom of only 5 feet. Less floor space needed than for any other boiler of equal capacity.

Operates satisfactorily with any gas, natural or manufactured. Narrow flues present extensive heating surface, easily accessible for cleaning. Adjustable burner height insures proper combustion with any kind of gas. No condensation within the boiler.

Tested and approved by American Gas Association.



Gas-Era Boiler. For steam, hot water or vapor heating

Mueller Gas-Fired Furnacette

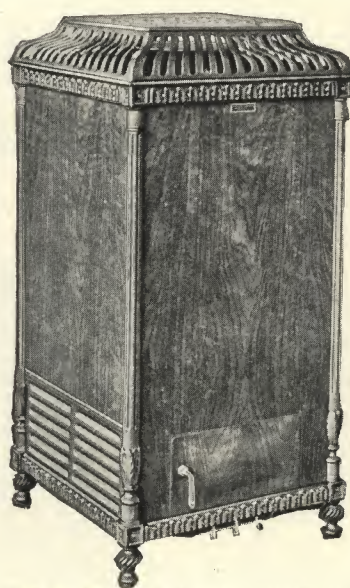
(Cabinet Heater.)

Operates in the same manner as a warm air furnace, circulating warm moist air through all the rooms.

Cabinet is of Louis XVI design, vitreous enamel finish, reproducing natural walnut grain.

Operates with any kind of gas, natural or manufactured.

The Furnacette is also made in coal-burning type, the heating unit being a small cast iron furnace.



Gas-burning Furnacette "Heats the Whole House"



For further details and literature, write to:

L. J. MUELLER FURNACE CO.

297 Reed St.
MILWAUKEE, WIS.

Cheerful Radiant Heaters

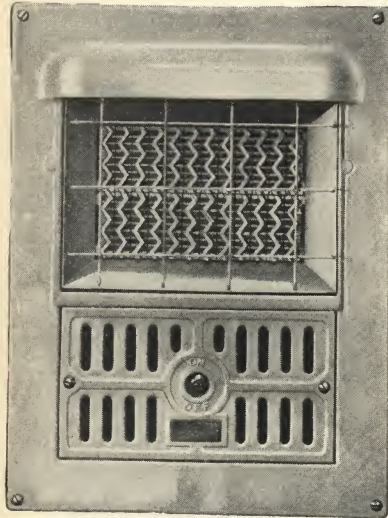
Manufactured by

THE ADAMS BROTHERS MANUFACTURING CO., Inc.
1500 FAYETTE ST., PITTSBURGH, PA.

Products—Adams Cheerful Radiant Heaters, Adams Cheerful Built-in Fireplace Grates, Adams Cheerful Wall Type Gas Heaters, and Adams Cheerful Electric Wall Type Heaters.

Adams
CHEERFUL
Radiant Heaters

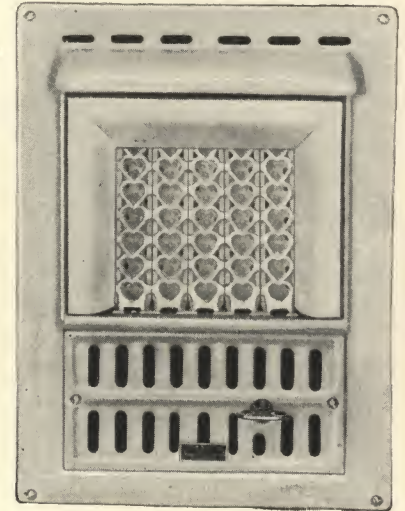
Gas Radiant Heaters, designed for use with manufactured or natural gas. Seventeen styles in 5-7-10 and 14 Radiant sizes. Electric Wall Heaters are one size. Several finishes. Catalog on request.



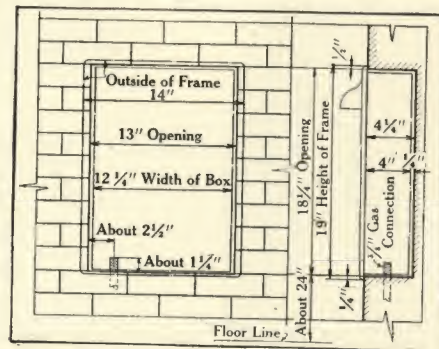
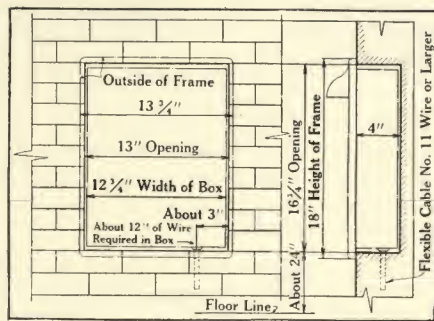
The Adams Cheerful Wall Type Heaters set in a recessed opening between studding. Easily installed.

The Electric Heater is made in one size—finish White Enamel. Heater element is made of Chromel A resistance wire. Will not break by expansion or contraction. All parts easily accessible, heater element removable without removing frame. Will not "smoke up" walls.

The Wall Type Gas Heaters are made in 5 Radiant size, finished in White Porcelain Enamel, Antique Brass or Statuary Bronze. Central Draft Burner with secondary air mixer, solid fireclay Backwall, cast iron construction throughout.

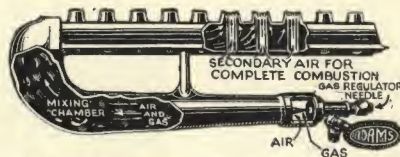


Style 13-E
Electric
Wall Type
Heater
1300 Watts
110-120 or
220-240
Volts



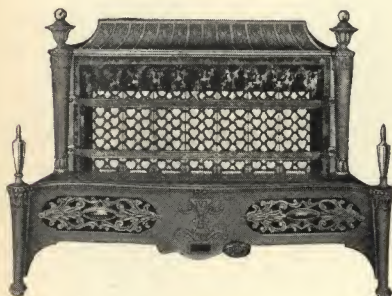
Style No. 5
Wall
Heater
Also made
in 5 A with
Double
Ventilating
Spaces at
Top

The Central Draft Burner used on all Radiant Heaters, Fireplace Grates and Wall Type heaters has no screens or small air passages to clog up and interfere with proper combustion. The suction produced by gas passing from the needle valve draws air into the mixing chamber, where

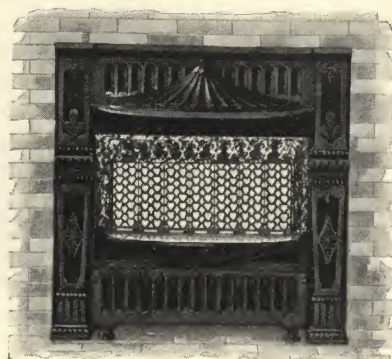


The Central Draft Burner

the air and gas are thoroughly mixed. As this mixture passes out of the burner tips and burns, additional or secondary air is drawn into the flame through the central draft flues. This insures complete combustion and More Heat from Less Gas.



Style No. 20



Style No. 7



Style No. 9

No other radiant heater has a Central Draft Burner. Send for Design Catalog.



For further details and literature, write to:

THE ADAMS BROTHERS MFG. CO., Inc.

1500 Fayette St.
PITTSBURGH, PA.

RAY-GLO

RADIANT HEATERS

SUPERAY

CAST BRONZE ENTRANCE LANTERNS—"Artcraft"

Bathroom Cabinets * "Builders Special"

THE J. H. GRAYSON MANUFACTURING COMPANY

Athens, Ohio

New York
Philadelphia
New Orleans

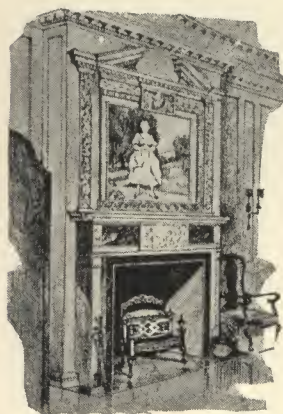
UNITED STATES
Chicago
St. Louis

Los Angeles
Little Rock
Dallas

Montreal
Edmonton
Vancouver

CANADA—McClary's
Toronto
Calgary
St. John, N. B.

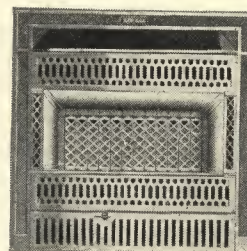
London
Hamilton
Walkerville



The Chippendale



No. 410



Mantle Grate No. 126
Width 31"; Height 31";
Depth 5 1/2"
Maximum Opening 30"x30"
Minimum Opening 27 1/4"
Wide; 25 1/4" High

Lotus Space Heater
for Rooms without
Fireplaces



No. 810

Ray-Glo Heaters Combine Artistry, Convenience and Economy

PERIOD DESIGNS—The modern fireplace, center of attraction in the new homes, must have fixtures that are truly appropriate both from a standpoint of beauty and heating efficiency. The Ray-Glo Period Models were designed and built to meet this need.

COMPLETE LINE—The Ray-Glo line also offers Mantle Grates to completely fill the fireplace opening, attractive room heaters for use where there is no fireplace, and convenient portables for general use.



HEALTHFUL HEAT—Health authorities and heating experts are now recommending the radiant type heat, which Ray-Glo furnishes, to augment central heating plants. These heaters furnish a source of radiant energy (Sun Heat) that cannot be obtained from steam and warm air heating systems and is not only beneficial but very necessary in building up muscular tone in the body.

FREE BOOKLET—A valuable booklet (not an advertisement) on correct and healthful home heating compiled from the works of eminent authorities will be mailed on request.

Cast Bronze Entrance Lanterns



No. 301

CAPE COD
Height 7 3/4"
Width 6"
Bracket 6"

Glass, Frosted or Clear

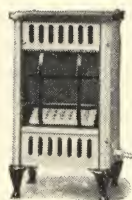
Artercraft Metal Works will furnish Custom Built Lanterns to your specifications.

A number of these custom built lanterns have been placed on a stock basis and it is now possible to procure solid Cast Bronze lanterns of unusual character at prices little higher than plated imitations or flimsy sheet metal makeshifts.

Artercraft Lanterns cannot stain white wood or stone work and years of use greatly enhance their beauty.

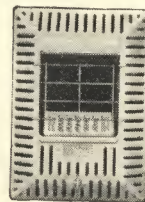


Portable and Wall Heaters



No. 21—White, Portable
Finish—Porcelain Enamel
Height 19"; Width 10 1/2";
Depth 9"

No. 11—Insert Wall
Heater, Cast Iron Frame
Finishes—White Porcelain
Enamel, Antique Brushed
Brass, Statuary Bronze
Height 18 3/4"; Width
13 1/4"; Depth 3"

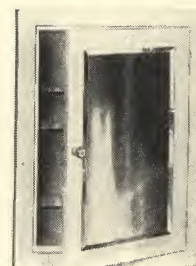


In this day of space saving features and built-in conveniences home-builders welcome the Superay No. 11 Insert Wall Heater. The No. 21 is excellent as a portable for bathroom, bedroom or kitchen.

The CATALYTIC or Surface Combustion Burner (exclusive in Superay Heaters) not only provides abundant clean heat but makes possible very moderate prices through simplicity in construction.

SUPERAY

All-Steel Bathroom Cabinet



Construction

BODY—Follansbee Forge Steel, formed in powerful presses and then electrically welded or oxwelded, making a rigid "one-piece" cabinet.

MIRROR—First quality polished plate glass with one inch beveled edge.

SHELVES—Three adjustable plate glass shelves with polished and chamfered edges.

FINISH—Three coats White Duco with undercoat baked on.

DIMENSIONS
Over All, 16 7/8"x22 7/8"
Inside, 13 1/4"x19 1/4"
Mirror, 11"x17"

"BUILDERS SPECIAL"

For further details and literature, write to:

THE J. H. GRAYSON MFG. CO.

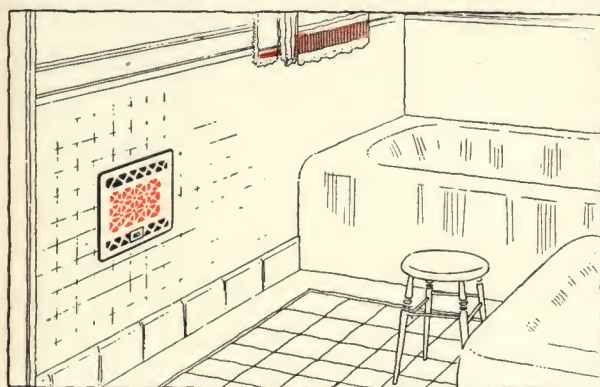
OAK & PALMER STS.
ATHENS, OHIO

WISCONSIN ELECTRIC HEATER COMPANY

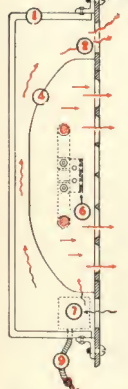
Manufacturers of Built-In and Portable
HEATING UNITS FOR THE HOME
281 Clinton Street, Milwaukee, Wis.

Glo-Warm No. 10 Combined Radiant and Warm-Air Bathroom Heater

A chilly bathroom—dressing time—baby's bathtime. Press the switch and a stream of comforting warmth quickly heats, not only the individual standing in its radiant rays, but also the air in the room. The Glo-Warm No. 10 incorporates the advantages of the radiant type of heater, and by means of air intake openings at the bottom of the grille, permits the circulation of air through the heater, where it is warmed and passed out through the upper opening. This provision makes the Glo-Warm No. 10 heater a veritable warm air heating unit right in your bathroom; using, to advantage, all of the heat developed by the electric current. The heater is built-in and the porcelainized faceplate finishes flush with the wall, presenting an appearance in keeping with the finest bathroom fixtures.



Explanation of Glo-Warm No. 10 Construction



1. Double wall metal case with insulating air space between the walls.
2. Current of warmed air circulating around the room.
3. Cast porcelainized faceplate 16 1/8" vertical x 16 3/8" horizontal.
4. Reflector of special design, producing parallel rays of radiant heat which are not focussed to one dangerous hot spot, nor spread out so as to lose their intensity.
5. Two globar incandescent rods: Years of life: Inexpensive to renew.
6. Unit comes assembled, ready to attach to studding by these lugs and be connected by electrical contractor.
7. Double pole switch completely cuts off heater and is safer than the single pole type.
8. Screws attaching faceplate to studding through plaster. Leave opening 14 1/4" vertical x 14 1/4" horizontal in plaster, with lower edge from 12" to 24" from floor.

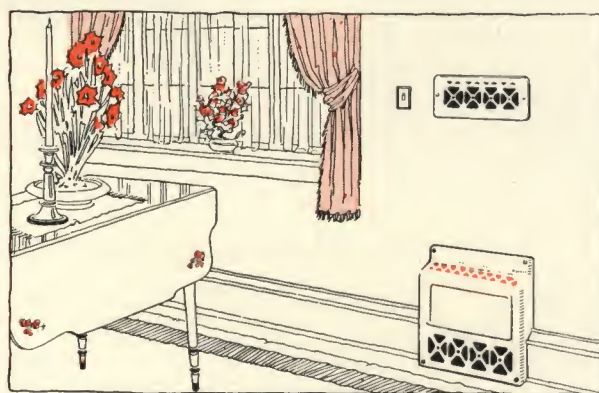
Made in two sizes: 1,000 watt and 1,500 watt; 110 or 220 volt; 25 or 60 cycle; AC or DC current. Specify which is wanted. Special features covered by patent application.



Glo-Warm No. 11—Convection Warm-Air Electric Heater

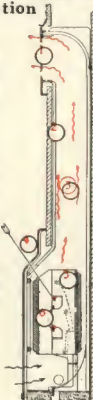
Chilly days of Spring and Fall. One warm room where the housewife can sit down, or where the children can study. Or if the breakfast nook will be warm and cozy for breakfast—or the nursery for dressing time. The No. 11 Glo-Warm utilizes the full value of the heat units in the electric current to heat the air in the room. In the base is a casting containing hot passageways, thru which the air travels. The 1,000 watt size produces

36 cu. ft. of warm air per minute at 137° F., with the room temperature at 50°. The 1,500 watt produces 45 cu. ft. of warm air per minute at 160° F., with the room temperature at 50°.



Explanation of Glo-Warm No. 11 Construction

1. Lacquered warm air outlet. The outlet and inlet may be refinished if desired. Use any good grade enamel or lacquer. Outlet and inlet plates are screwed to studding after plastering.
2. Double wall case with insulating air space. Unit comes assembled, ready to be set up and connected by the electrical contractor.
3. Warmed air current; no vapor or odor; no devitalizing of the air; simply warmed.
4. Lacquered cold air inlet. Note small holes in slanting portion. Thru these and thru the glass window in the case below them, the incandescent globar rods may be seen.
5. Circular unit, containing 1,100 sq. inches heating surface.
6. Two globar incandescent rods: Years of life: Inexpensive to renew.



7. Length of wires provided from the globar terminals to outlet box may be led through the case on either side. The switch (to be provided by electrical contractor) should conform to the other fixtures and be placed in a convenient location.
8. Screws for attaching face plates to studding through plaster.

Made in two sizes: 1000 watt and 1,500 watt; 110 or 220 volts; 25 or 60 cycle; AC or DC current. Specify which is wanted. Special features covered by patent application.

Gilt Edge Glo-Warm Electric Heaters are designed along sound heating principles, by an organization of over fifty years experience in the manufacture of home heating equipment of all kinds. Their research laboratories enable them to make complete tests on all models before they are put into production.



For further details and literature, write to:

WISCONSIN ELECTRIC HEATER CO.

281 Clinton St.
Milwaukee, Wis.

Automatic Heat Regulators

For Coal, Coke, Gas or Oil-fired Heating Plants

Manufactured by

MINNEAPOLIS-HONEYWELL REGULATOR CO.

Executive Offices, Minneapolis, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR

The best time to install automatic heat regulation is when your home is being erected. Your consideration of so important a subject is, therefore, warranted at this time. Automatic regulation is essential regardless of the type of heating system you have decided on or the kind of fuel required.

Greater comfort, added safety, increased heating efficiency, reduced operating costs, more healthful temperatures and convenience of operation are some of the advantages to be gained by the installation of a heat regulator. The time of building is particularly practical for the purchase of this equipment because the cost can be handled over the period of general financing. In this way there is no appreciable increase in your cash outlay periodically throughout the finance period.

Principle of Operation of a Heat Regulator

A heat regulator is a device which automatically governs the temperature of the living rooms thru a mechanical device mounted on the wall of the room most generally used during the day and evening. In addition to the room thermostat there is a unit located on the heating plant which acts as a limiting device to prevent the temperature or pressure at the heating plant from reaching an excessive point. By the use of the limiting device, the danger of overheating is eliminated together with the possibility of damage to the system from dry boilers, overheated warm air ducts and other hazards which accompany overheating.

The room thermostat and limiting device jointly control the operation of a motor, relay or valve depending on the type of fuel being used. Assuming that the temperature desired for the living room is 70°, and the indicator on the thermostat has been set for that degree, the operation is as follows:

When the room temperature reaches 70°, an electric circuit is completed, at the thermostat, which energizes the motor, relay or valve causing it to operate and close the draft, stop the burner motor or close the fuel supply line. The control units remain inactive until the room temperature drops two degrees at which point another electrical circuit is made and the draft is opened, burner motor started or fuel supply line opened.

Limiting Device Provides Dual Control

The limiting device comes into action when the room thermostat is calling for heat but the temperature at the heating plant has reached the maximum point of efficiency—the degree at which the indicator on the limiting device is set, 160° for instance. At this point the limiting device cuts in and closes off the heat supply at its source, to prevent excessive temperatures at the heating plant.

When the temperature at the plant drops a predetermined number of degrees, the limiting device turns on the heat supply providing the room temperature has not reached the desired degree.

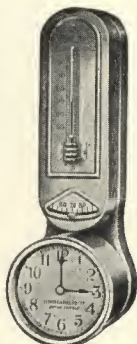
By the use of a three unit temperature control you are insured satisfactory, economical and safe operation of your heating system at all times and under any condition.

Clock Type Room Thermostat

Several models of room thermostats are available but the choice of the majority of present users is the eight day jeweled clock thermostat.

In this instrument is provided automatic means for lowering the thermostat indicator to any desired degree of night temperature at a predetermined hour, and automatically moving the indicator back to the day temperature setting at any desired hour in the morning. For instance at 10:30 P. M. the indicator is lowered to 64° at which point it maintains the room temperature during the night; at 6:30 A. M. the indicator is raised to 70°, opening the drafts or fuel supply line and bringing the living rooms up to a comfortable temperature by the time you arise.

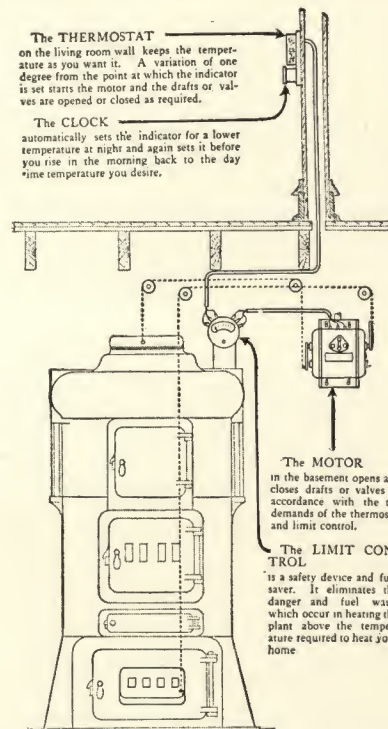
Among the several advantages in using a clock type thermostat are heating economy thru a reduced night temperature level and the comfort and convenience of arising in a warm



room without the necessity of interrupting your sleep to open up the heating plant.

What Heat Regulation Will Do for You

Statistics show a material saving in fuel consumption by the use of automatic temperature regulation. Being assured of dependable control of your heating system at all times is an advantage which cannot be expressed in terms of dollars and cents. More healthful temperatures in the home can only be had by putting your heating plant under the complete control of a heat regulator. The danger of an overheated furnace,



resulting in damage to the heating system is provided against by the limiting device on the heating plant. That last hour's sleep in the morning need not be broken into when a clock type room thermostat is controlling the temperature of your home.

If You Install an Oil Burner

Controls for oil burners are usually supplied by the manufacturer of the burner—but whether they are included with the burner or not, insist on a Minneapolis-Honeywell system for dependable, safe operation.

Detailed information on the complete line of heat regulators made by the Minneapolis-Honeywell Regulator Company can be obtained thru your building contractor or direct from the above Company.

Remember that the returns on your investment in a heat regulator continue throughout a lifetime.



For further details and literature, write to:

MINNEAPOLIS-HONEYWELL REGULATOR CO. 2747-53 Fourth Ave., South Minneapolis, Minn.

SCHLEICHER, INC.

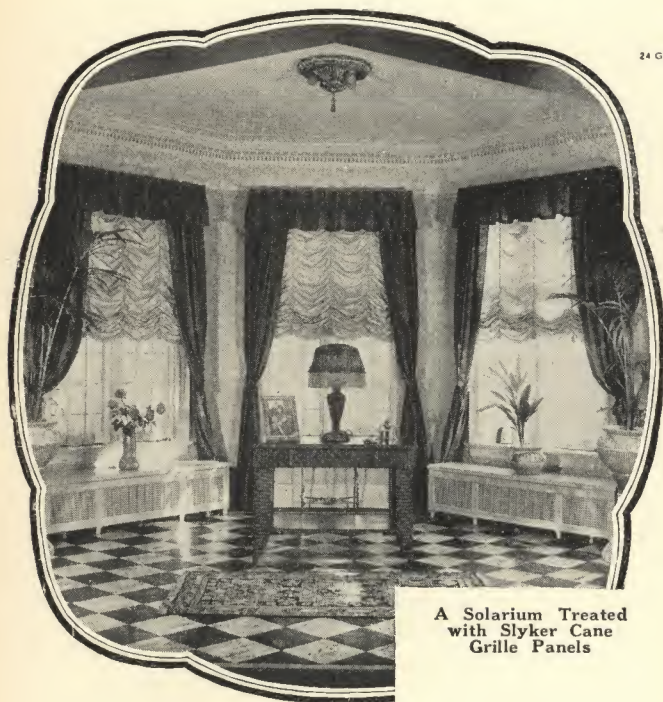
Manufacturers of Slyker Metal Radiator Furniture and Electric Heaters

Executive Offices and Factory

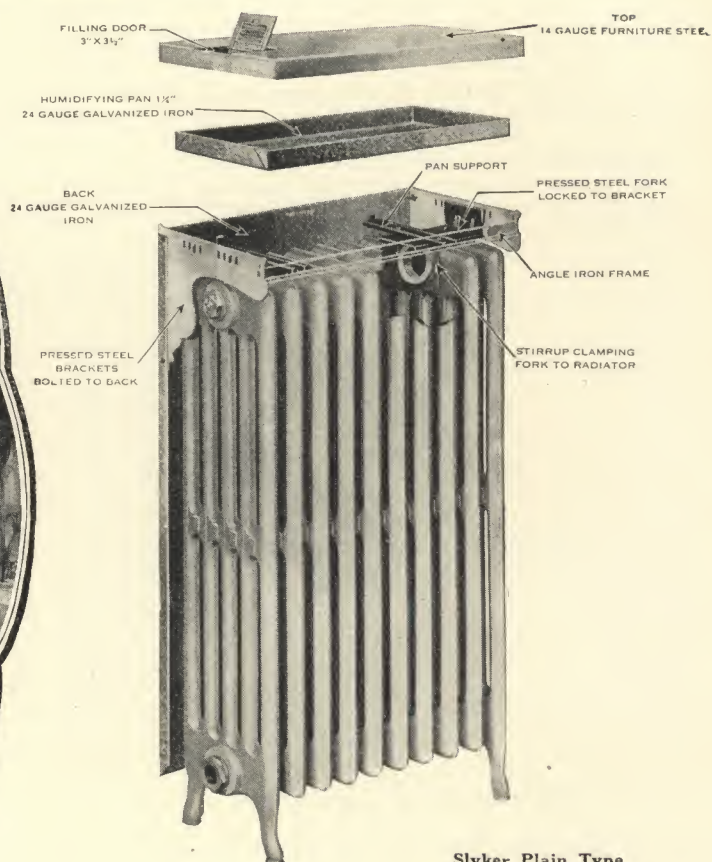
Gary, Indiana

Specification Sheet will be furnished on request.
Estimates furnished without obligation.

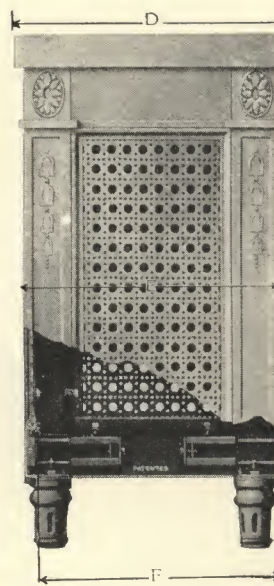
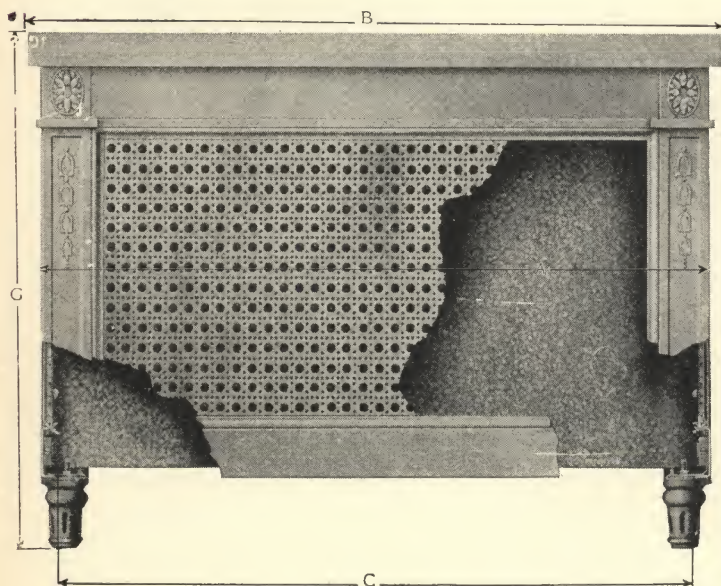
See Pages 524 and 525 for typical installations.



A Solarium Treated with Slyker Cane Grille Panels



Slyker Plain Type



| DIMENSION 'A' | OVERALL LENGTH OF GRILLE BASE.....24" | DIMENSION 'D'..... | 9 5/8" | 12" | 14 5/8" |
|---------------|---------------------------------------|--------------------|--------|---------|---------|
| DIMENSION 'B' | OVERALL LENGTH OF TOP.....25" | DIMENSION 'E'..... | 9 1/4" | 11 5/8" | 14 1/4" |
| DIMENSION 'C' | INSIDE LENGTH OF GRILLE.....23" | DIMENSION 'F'..... | 8 5/8" | 11" | 13 5/8" |
| DIMENSION 'G' | FLOOR TO TOP OF COVER.....18 1/4" | | | | |

Slyker Cane Grille

16 in. high, 24 in.-long. No. 1 Width. Drawing G-2

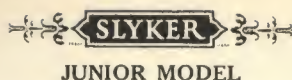
*Slyker Show Rooms
in the following cities:*

BOSTON, MASS.
BUFFALO, N. Y.
CHICAGO, ILL.
CINCINNATI, O.
NEW YORK, N. Y.
OAKLAND, CAL.
OMAHA, NEB.
PHILADELPHIA, PA.
PITTSBURGH, PA.
ROCKFORD, ILL.
CLEVELAND, O.
DETROIT, MICH.
ST. LOUIS, MO.
ST. PAUL, MINN.
WASHINGTON, D. C.
YOUNGSTOWN, O.
GREENVILLE, S. C.
HARTFORD, CONN.
KANSAS CITY, MO.
MILWAUKEE, WIS.



For further details and
literature, write to:

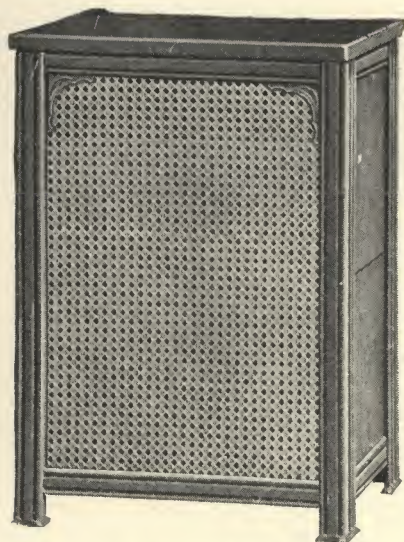
SCHLEICHER, Inc., Gary, Ind.



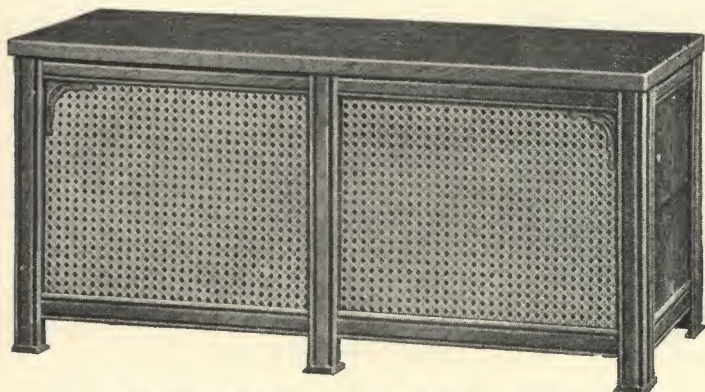
Slyker Konvektair Electric Heaters

The wall heater is made in 660 and 1000-watt capacities equal to 10 and 14 sq. ft. of steam radiation respectively.

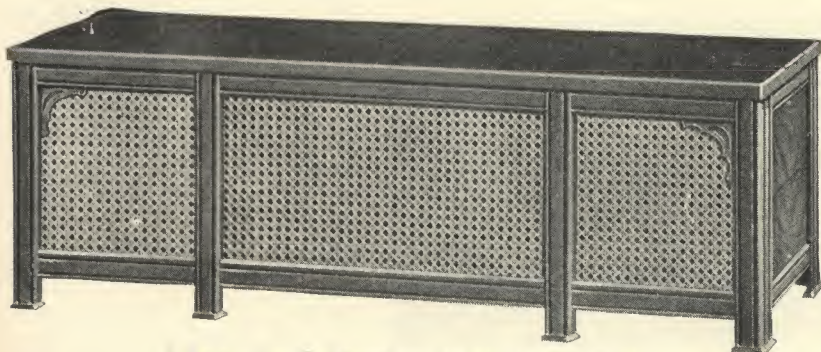
The cabinet heaters are made in 1200, 2400, 4800-watt capacities, equal to 17, 34 and 68 sq. ft. of steam radiation. 1400-watt wall insert heaters may also be had.



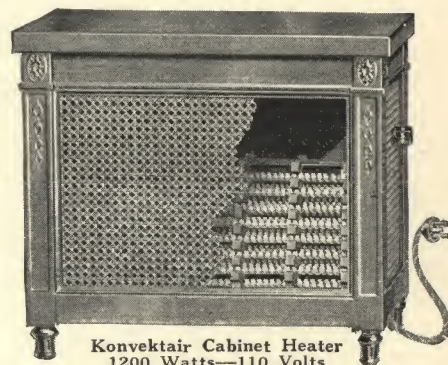
1 Panel—For Radiators to 36" in length



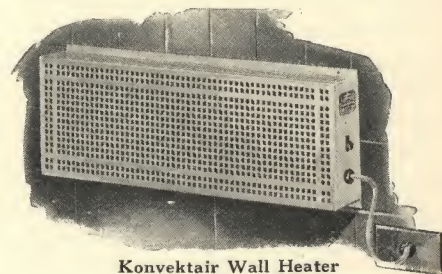
2 Panel—For Radiators 38" to 58" inc. in length



3 Panel—For Radiators 60" to 92" inc. in length



Konvektair Cabinet Heater
1200 Watts—110 Volts



Konvektair Wall Heater
1000 Watts—110 Volts

The heating coils of Konvektair do not "glow" and hence no life-giving oxygen is taken from the air. They never become warmer than a steam radiator and will not burn the body of even a young child.

The tapelike metal coils of Slyker Konvektair give remarkable radiating surface. In the 1000-watt heater, for example, there are 80 ft. of coil, or 400 sq. in. of active radiating surface.

Nothing to wear out; nothing to service; no installation problem. The 660 and 1000-watt wall heaters and the 1200-watt cabinet heater will operate on any standard lighting circuit. Made of metal, beautifully designed and handsomely finished in walnut or ivory.



For further details and literature, write to:

SCHLEICHER, Inc., Gary, Ind.

Ideal Boilers and "American" Corto Radiators

Manufactured by

AMERICAN RADIATOR COMPANY

General Offices, 40 West 40th St., New York City

For Other Products See Pages 366, 398

BRANCH SALES OFFICES

Atlanta, Ga.—232 Peachtree St.
Baltimore, Md.—1308 Lexington Bldg.
Boston, Mass.—129-131 Federal St.
Buffalo, N. Y.—374 Delaware Ave.
Chicago, Ill.—816 S. Michigan Ave.
Cincinnati, O.—710 Gwynne Bldg.
Cleveland, O.—1294 E. 55th St.

Denver, Colo.—24th & Blake Sts.
Detroit, Mich.—1344 Broadway
Indianapolis, Ind.—900 N. Senate Ave.
Kansas City, Mo.—906 Davidson Bldg.
Milwaukee, Wis.—1801 St. Paul Ave.
New York City—40 W. 40th St.
Omaha, Nebr.—413 S. 10th St.

Philadelphia, Pa.—25th & Reed Sts.
Pittsburgh, Pa.—337 2nd Ave.
San Francisco, Cal.—4th & Townsend Sts.
Seattle, Wash.—Holgate & Utah Sts.
St. Louis, Mo.—4201 Duncan Ave.
St. Paul, Minn.—Prior & Minnehaha Ave.
Washington, D. C.—4th & Channing Sts.

MAKERS OF IDEAL BOILERS, "AMERICAN" CORTO RADIATORS, AND OTHER PRODUCTS FOR HEATING, VENTILATING AND REFRIGERATING

NEW IDEAL SECTIONAL BOILER

The First Completely Equipped, Metal-Covered, Porcelain-Enamel Finished Boiler at
POPULAR PRICES

Perfected Design Assures Quick Heating Response and High Efficiency

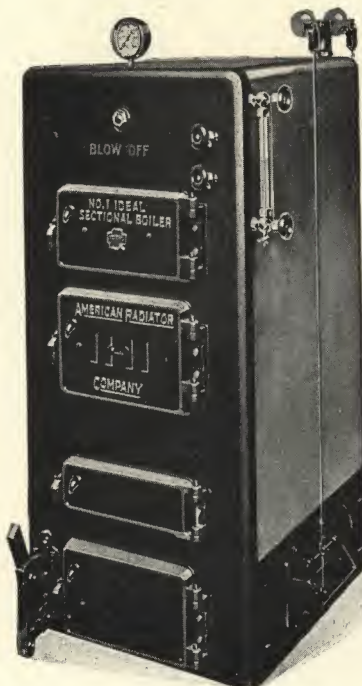
Mild warmth for moderate weather; quick heating for cold winter mornings; adequate heat for zero days; fuel and attention economy and cleanliness of operation that set entirely new standards; these are qualities that forty years of boiler design and manufacture have achieved in the new Ideal Red Jacket Boiler.

The long firing periods and quick, efficient heating of this Boiler are due chiefly to its large, scientifically designed fire chamber. This chamber has an abundant coal capacity and an extensive heat absorbing surface. It is supplemented by a long, double, gas-tight flue travel that removes the heat from the hot gases on their way from fire chamber to chimney.

Cleanliness That Permits the Use of the Cellar as a Livable Part of the Home

So clean in operation is the new Ideal Red Jacket Boiler, that even the room in which it is installed may be used as a livable part of the home. This is a consideration that is most earnestly recommended to home builders. The cellar costs proportionately the same as the rest of the home, yet usually only about twenty-five percent of it is used. Present real estate and building costs make the utilization of this waste space most desirable.

The cleanliness of the Ideal Red Jacket Boiler is the result of the special seepage-proof sealing construction between



the sections of which it is composed and the smooth finish of the contacting surfaces of sections, plate work, and doors. The machine-ground smoothness of these surfaces forms a construction that is dust, gas, and air tight, and insures fuel economy as well as cleanliness.

Completely Equipped; Thoroughly and Indestructibly Insulated

The Ideal Red Jacket Boiler is completely equipped with new, sensitive Arco mechanical regulation and all accessories, including retard steam gauge, water gauge glass, and relief valve for steam boiler, and thermometer for water boiler.

The insulating jacket of the Ideal Red Jacket Boiler saves fuel by preventing heat loss through radiation. It also provides final insurance of cleanliness of operation. It consists of a metal cover with the latest improved type air-cell asbestos lining.

Permanently Beautiful, Cover Finished in Bright Red Enamel, Doors in Black Porcelain Enamel

The appearance as well as cleanliness of the Ideal Red Jacket Boiler especially adapts it for use in the new livable basement. Its lines are straight, simple, attractive. It is excellently proportioned. Its metal jacket is finished in bright red enamel, baked on like an automobile finish. Its doors are finished in finely contrasting black porcelain enamel that is not affected by heat. This enamel finish of jacket and doors is permanently beautiful and easily cleaned.



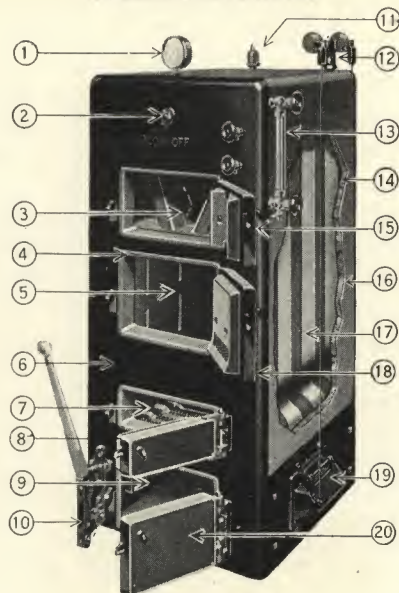
For further details and literature, write to:

AMERICAN RADIATOR COMPANY

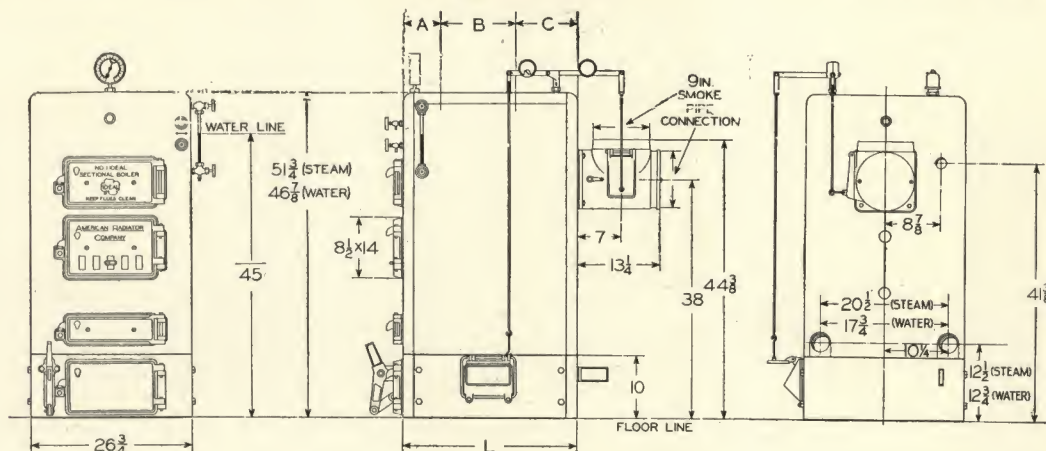
40 West 40th Street
NEW YORK CITY

SPECIFICATIONS

1. Sensitive retard steam gauge.
2. Blow-off conveniently located in front for cleaning.
3. Long, double gallery flue for hot gas travel secures high operating economy.
4. All contact-surfaces on doors and plate work ground to smooth finish for dust-proof construction.
5. Large, scientifically proportioned fuel chamber of abundant coal-carrying capacity for long firing periods and easy caretaking.
6. Jacket, indestructible sheet steel, baked enamel finish.
7. Special grates allow use of small size coal, such as Buckwheat and Pea. Triangular top construction grinds clinkers when grates are shaken, facilitating caretaking. Reinforced trussed construction.
8. Porcelain enamel finished doors of enduring lustre and beauty.
9. Ashpit of ample proportions for easy caretaking with cast iron base of strong, trussed construction.
10. Shaking mechanism, flexible, durable.



11. Safety valve.
12. New, sensitive Arco Regulation.
13. Water gauge glass with brass fittings, easily read.
14. Latest improved type air cell asbestos insulation permanently prevents radiation heat loss.
15. Flue door with curved baffle lining, insures easy gas travel and minimum draft.
16. Side metal jacket, indestructible and finished with beautiful red baked enamel.
17. New, sealed, seepage-proof construction between all sections.
18. Sturdy fire door with special baffle lining containing secondary air distributor.
19. Primary Draft Inlet.
20. Note substantial construction of all doors, plate fittings, hinge pins, etc., all porcelain enamel finished, for permanent beauty.



Ratings—Ideal Sectional Boiler No. 1
STEAM

| Number of Boiler | Rating Steam Sq. Ft. | Grate Area Sq. Ft. | Fuel Capacity Lbs. | Outlets No. and Size | Inlets No. and Size | Chimney Size Inches | Chimney Height Feet | Dimensions, Ins. For locating flow tappings | | | | Assembly of Sections |
|------------------|----------------------|--------------------|--------------------|----------------------|---------------------|---------------------|---------------------|---|--------|-------|----|----------------------|
| | | | | | | | | A | B | C | L | |
| 1-S-4 | 350 | 1.33 | 120.0 | 1-3" | 2-2 | 8 x 8 | 30 | 11 1/2 | ..... | 4 1/2 | 16 | F-BX |
| 1-S-5 | 500 | 1.79 | 160.0 | 2-3" | 2-2 | 8 x 8 | 30 | 15 1/2 | ..... | 4 1/2 | 20 | A-C-BX |
| 1-S-6 | 650 | 2.25 | 200.0 | 2-3" | 2-2 | 8 x 8 | 30 | 12 | 7 1/2 | 4 1/2 | 24 | F-CX-BX |
| 1-S-7 | 800 | 2.71 | 240.0 | 2-3" | 2-2 | 8 x 12 | 35 | 8 | 15 1/2 | 4 1/2 | 28 | A-CX-C-BX |
| 1-S-8 | 950 | 3.17 | 280.0 | 2-3" | 2-2 | 8 x 12 | 35 | 12 | 15 1/2 | 4 1/2 | 32 | F-CX-C-BX |
| 1-S-9 | 1100 | 3.63 | 320.0 | 2-3" | 2-2 | 8 x 12 | 35 | 16 | 15 1/2 | 4 1/2 | 36 | A-C-CX-C-BX |

WATER

| Number of Boiler | Rating Steam Sq. Ft. | Grate Area Sq. Ft. | Fuel Capacity Lbs. | Outlets No. and Size | Inlets No. and Size | Chimney Size Inches | Chimney Height Feet | Dimensions, Ins. For locating flow tappings | | | | Assembly of Sections |
|------------------|----------------------|--------------------|--------------------|----------------------|---------------------|---------------------|---------------------|---|--------|-------|----|----------------------|
| | | | | | | | | A | B | C | L | |
| 1-W-4 | 600 | 1.33 | 120.0 | 1-3" | 2-3 | 8 x 8 | 30 | 11 1/2 | ..... | 4 1/2 | 16 | F-BX |
| 1-W-5 | 850 | 1.79 | 160.0 | 2-3" | 2-3 | 8 x 8 | 30 | 15 1/2 | ..... | 4 1/2 | 20 | A-C-BX |
| 1-W-6 | 1100 | 2.25 | 200.0 | 2-3" | 2-3 | 8 x 8 | 30 | 12 | 7 1/2 | 4 1/2 | 24 | F-CX-BX |
| 1-W-7 | 1350 | 2.71 | 240.0 | 2-3" | 2-3 | 8 x 12 | 35 | 8 | 15 1/2 | 4 1/2 | 28 | A-CX-C-BX |
| 1-W-8 | 1600 | 3.17 | 280.0 | 2-3" | 2-3 | 8 x 12 | 35 | 12 | 15 1/2 | 4 1/2 | 32 | F-CX-C-BX |
| 1-W-9 | 1850 | 3.63 | 320.0 | 2-3" | 2-3 | 8 x 12 | 35 | 16 | 15 1/2 | 4 1/2 | 36 | A-C-CX-C-BX |

A—4" Front Section
F—8" Front Section

C—Center Section
CX—Center Connecting Section

BX—Back Connecting Section



For further details and literature, write to:

AMERICAN RADIATOR COMPANY

40 West 40th Street
NEW YORK CITY

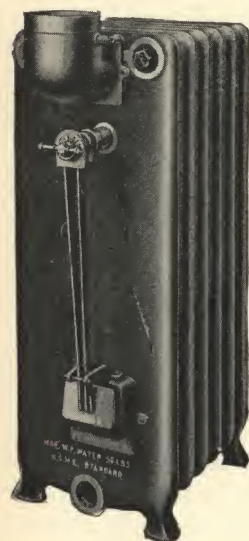
IDEAL ARCOLA HEATER

Lowest Cost Radiator Warmth for Small Homes and Other Buildings

More than one hundred thousand small homes in this country now have hot water radiator warmth that is equal in every way to that of large homes with the most elaborate heating systems. The invention that has brought the convenience, economy, comfort and healthfulness of radiator warmth to these homes is the Ideal Arcola Heater. This sturdy little heater is designed to perform the duties of both boiler and radiator, and thus saves the cost of one radiator. An Arcola Heating System is the least expensive hot water radiator heating system made.

For Homes With or Without Cellars

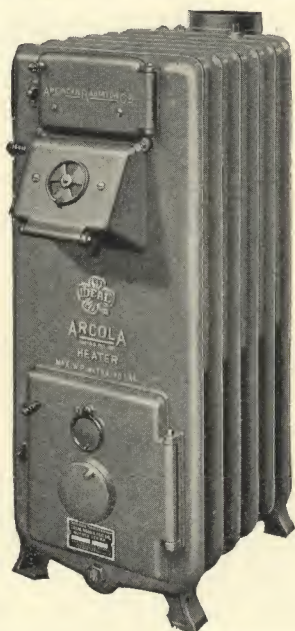
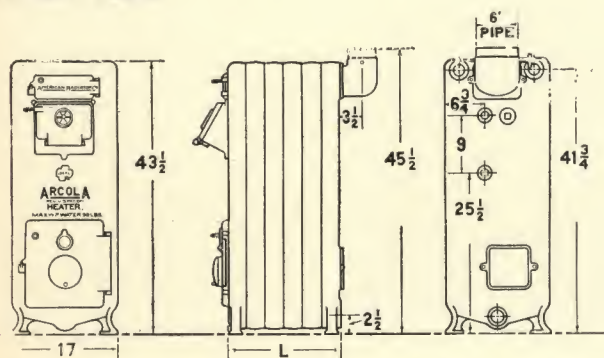
An important feature of the Arcola Heater is that it may be installed upstairs in kitchen or living room as well as in the basement. Its adaptability to upstairs installation makes it especially suited for use in the many cellarless homes now being built as well as in stores, shops, garages, etc., of similar construction.



How It Operates

The circulation of warmth in an Arcola Heater system is shown in the diagram at the right. The water in the Arcola becomes lighter as it is heated and rises through the piping to the expansion tank placed above the highest radiator. From there it returns through the radiators that distribute warmth in each room, to the

Arcola, where it is again heated and re-circulated. This flow of warmth is continuous, independent of cold and winds.

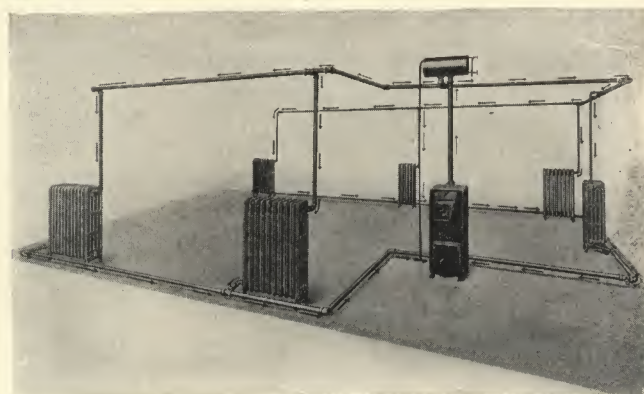


Positive Circulation Effects Even Heating

The positive circulation of hot water in an Arcola Heater system assures a steady, even distribution of warmth throughout the home. High winds that so often make it difficult to keep rooms in exposed sides of buildings warm with other kinds of heating, cannot disturb the flow of warmth in an Arcola Heater system.

Easily Installed; Readily Enlarged

The Ideal Arcola Heater is shipped completely assembled. Its installation is easily and quickly accomplished. And, because of its sectional construction, it may be readily enlarged at any time that heating requirements are increased.



Arcola Automatic Regulator; An Added Convenience and a Fuel Saver

At a slight additional cost the Ideal Arcola Heater may be equipped with an automatic heat regulator. This regulator may be set to maintain, without attention, the desired heat output. It saves time, assures even heating, and saves fuel. It is as reliable and durable as the heater itself, and soon pays for itself in fuel saving.

| No. of Boiler | Number of Sections | Rating Square Feet | Fuel Capacity Pounds | Length Inches | Radiator Surface Arcola Exp. Tank sq. ft. |
|---------------|--------------------|--------------------|----------------------|---------------|---|
| 4H | 4 | 200 | 60 | 12 | 45 |
| 5H | 5 | 300 | 80 | 15 | 50 |
| 6H | 6 | 400 | 100 | 18 | 55 |
| 7H | 7 | 500 | 120 | 21 | 60 |
| 8H | 8 | 600 | 140 | 24 | 65 |
| 9H | 9 | 700 | 160 | 27 | 70 |



For further details and literature, write to:

AMERICAN RADIATOR COMPANY

40 West 40th Street
NEW YORK CITY

THE MORE BEAUTIFUL C O R T O THE "AMERICAN" RADIATOR CLASSIC

A Distinguished Union of Beauty and Efficiency

Only a mind uniting to a rare degree both imaginative and practical qualities could have conceived a radiator uniting the beauty and utility that exist in the American Corto Radiator. Such a mind is the happy possession of M. Louis Courtot, artist-engineer of the American Radiator Company in France, who designed the graceful radiator that bears his name. This radiator is one of the most eloquent expressions of the present trend toward refinement of interior appointments, a fitting companion of the Ideal Red Jacket Boiler. Beautiful in line, proportion, and finish, and reduced in size, the Corto removes the necessity for radiator concealment, and may fittingly take its place in the finest interiors.

Reduced Size Without Loss of Heating Power

The reduced size of the American Corto Radiator not only makes it more attractive and less conspicuous, but saves a considerable amount of room space—an important factor in the compact rooms and foyers of modern homes. And this reduction in size has been accomplished without loss of heating power; the extensive surface of the many thin tubes of the American



Corto Radiator and the generous spacing between sections give it a heating power equal to or even greater than that of much bulkier old style radiators.

High Mechanical Perfection

The construction of the American Corto Radiator is the strongest, tightest, safest, and most sightly known. Sections are joined by malleable iron threaded nipples instead of by slip nipples and unsightly external tie bolts. This construction really provides two joints, one faced, the other threaded. Additional sections may be readily added at any time.

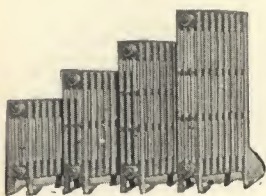
Now Costs No More

So keen has been the appreciation of the American Corto Radiator, and so large accordingly, has been its production, that it is now possible to offer it at no greater cost than that of the style of radiation it has replaced and of

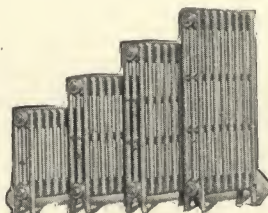
several contemporary radiators of lesser merit.

Available in a Complete Range of Sizes

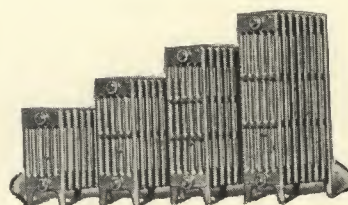
The American Corto Radiator is made in a complete range of sizes for every purpose; three, four, five, six, and seven tube (window) patterns, and in varying heights. Exactly the right size may be selected to fit the space that is available.



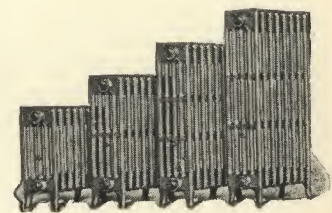
Three Tube



Four Tube



Five Tube



Six Tube



For further details and
literature, write to:

AMERICAN RADIATOR COMPANY

40 West 40th Street
NEW YORK CITY

Burnham Boilers for General Heating

BURNHAM BOILER CORPORATION

BOSTON
80 Boylston St.

Irvington, New York
Offices in All Principal Cities

CHICAGO
220 South State St.

Some Burnham Products

Round and square sectional cast iron boilers for all kinds of low pressure heating for water, steam, vapor and vacuum systems.

Tank heaters for both low and high pressure.



Round Steam or Water Boilers

For homes and other buildings where the radiation needed does not exceed 2,560 feet for water and 1,550 feet for steam, this boiler has many outstanding features.

Being made in sections, it's easy to install or repair. The castings are heavy—but not so heavy as to impede economical heating. Grates are revolving, operating in pairs.

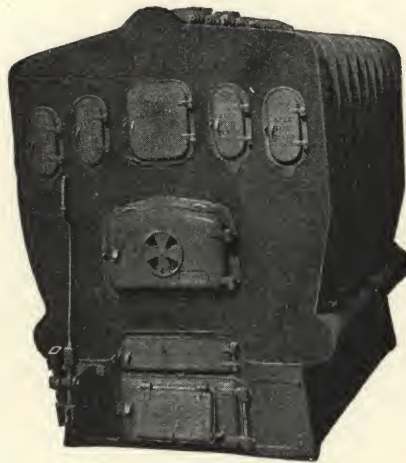
Fire pot is deep, and combustion chamber ample size. Crown sheet corrugated, a distinct economy advantage. Made from either steam or hot water in 18 sizes, to heat from 550 to 2,560 feet for water, and 330 to 1,550 feet for steam.

Burn All Fuels

Right next door from each other, Burnhams are economically burning soft coal, coke and oil. Burning all sizes from egg down to pea. It's another thing in which Mr. Burnham's uncanny sense sensed so well.

For Oil Burning

The fact that so many of the oil burner concerns are



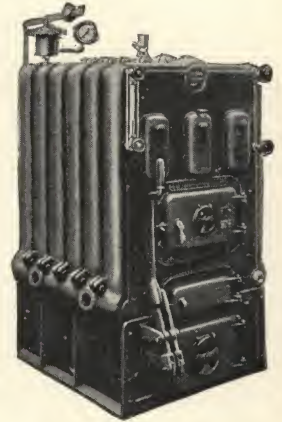
urging the use of Burnhams, shows how closely linked with the right boiler, they feel the success of their burner is.

High Pressure Water Supply Boiler

Made strictly for high pressure work in apartment houses, public buildings, etc. Tested at $2\frac{1}{2}$ times its ratio working pressure. Guaranteed for 80 pounds. Made in 7 sizes, to heat from 865 to 1757 gallons. Has won a reputation for easy firing and uniformly dependable heating.

Water Tube Type Hot Water and Steam Boiler

This is a true sectional with the usual Burnham long fire travel, double shaking grates, short tie bolt construction and easy cleanout features. Every inside surface is rounded, giving the



maximum of heat absorbing surface and no dead corners. Sizes are 21, 27 and 36.

General Economy Points

Everybody claims their boiler has all the rest backed off the boards.

All of them can't be "the best made."

But none of them have actually met and won in the severe tests given the Burnhams.

Burnhams won their first spurs heating greenhouses. Next to heating all outdoors, a greenhouse is the most difficult.

If they can economically heat houses having only $\frac{1}{8}$ of an inch of glass between frost and flowers, it is self-evident what they will do under less exacting conditions.

Send for Printed Matter

Exact information for yourself is in our Hand Book. Just the untechnical, easy to understand kind home owners want is in "Letters To and Fro."

Send for both.



For further details and literature, write to:

BURNHAM BOILER CORPORATION, Irvington, N. Y.

Mueller Boilers, Tank Heaters and Garbage Burners

Manufactured by
L. J. MUELLER FURNACE CO.

Established 1857

General Offices
297 Reed Street
MILWAUKEE, WIS.
FOR BRANCH OFFICES, See Page 350

Products

Steam and Hot Water Boilers, Hot water Supply Boilers and Combination Hot Water Supply Boiler and Garbage Burners.

For all-cast Warm Air Furnaces, pipe and pipe-less types; combination wood and coal; wood burning only; Direct Fired Forced Air Unit Heaters; Horizontal Tubular Heaters for churches and schools; steel furnaces, see page 350.

For Gas-Era Gas-Fired Warm Air Furnaces and Boilers; also gas-fired and coal fired Furnacette (Cabinet Heater), see page 367.

For Registers, Grilles and Ventilators, see page 360.

Mueller Boilers for Hot Water, Steam and Vapor Heating

Mueller Boilers are made in three series and 20 sizes for hot water, steam and vapor heating of residences, churches, schools, stores, etc. They are constructed on the principle of obtaining the greatest heating efficiency with the least possible fuel consumption.

The Double Dome (exclusive Mueller feature) is two sections cast in one piece—two water chambers with full width fire travel between. This insures travel of heat across the entire section—full heat value from the fuel burned.

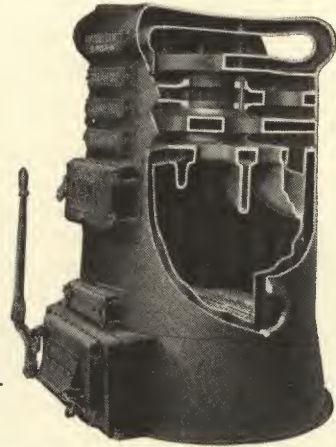
Intermediate sections above the firepot add to the amount of heating surface, providing additional capacity.

Mueller Boilers can be cleaned through front and rear—keeping sections free from soot deposits.

An exclusive feature in Mueller Boiler construction is found in the overhanging crown sheet and radial arms, cast as part of the firepot. This extra heating surface is more than equivalent to two extra sections in the ordinary boiler. These radial arms extending down very close to the flames of the fire, result in quicker heat in the boiler and save fuel.

Ideal for Use with Oil Burner

Mueller Boilers are well adapted for use with any type of Oil Burner. The vast amount of direct heating surface immediately above and in direct contact with the flames, insures quick heating response with a consequent saving in oil.



Mueller Hot Water Boiler showing Double Dome, Intermediate sections and radial arms.

Mueller Hot Water Supply Boiler

This tank heater supplies the demand for hot water at all times, regardless of weather conditions, burns but little fuel and is easily regulated and cared for.

Made entirely of highest grade cast iron, has but few parts and is easily and quickly installed. Tested to 250 pounds pressure.

Made in four sizes with a range in capacities sufficient to take care of ordinary requirements in homes, apartments, hotels, barber shops, factories, offices, etc.

No waiting for water to heat. It's always ready for the bath, shaving, washing dishes, laundry and for emergencies. Requires only a few minutes' attention two or three times a day.



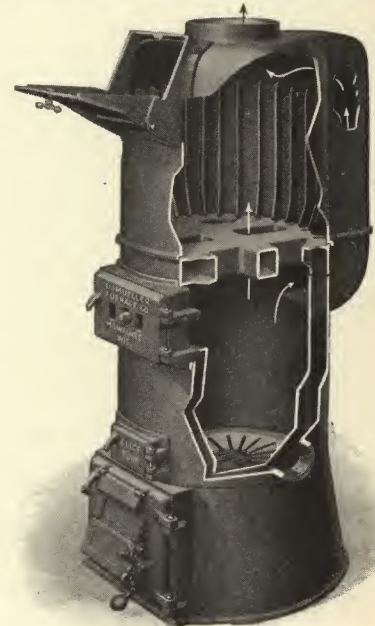
Hot Water Supply Boiler

Mueller Combination Hot Water Supply Boiler and Garbage Burner

The Mueller Garbage Burning Supply Boiler is the same as the Hot Water Supply Boiler described above, with the addition of a heavy cast iron garbage chamber. A special flue construction carries smoke and gas to the rear and over the top of garbage chamber until garbage is dried. The dry garbage is then burned by flames passing through it. No smoke or gas can escape from the boiler into the house.

A few shovelfuls of pea coal or chestnut heats an ample supply of water for domestic use, and at the same time dries and burns all garbage.

Made in 5 sizes.



Mueller Garbage Burner and Hot Water Supply Boiler



For further details and literature, write to:

L. J. MUELLER FURNACE CO.

297 Reed St.
MILWAUKEE, WIS.

Richardson Boilers for Steam and Hot Water Heating

Manufactured by

RICHARDSON & BOYNTON CO.

260 Fifth Ave., New York City—Utica, N. Y.

For Branch Offices See Page 351

Since
1837

Other Products

Warm Air Heaters, Pipeless Furnaces, pages 351-353. Coal and Combination Coal & Gas Ranges, page 412. Hot Water Laundry and Tank Heaters, page 407.



The "Richardson" Square Cased Boiler

Color is the keynote of the smart home today. Kitchen, bathroom, porch and now the cellar—all are brightened up by this charming new touch.

Introduced by noted architects and acclaimed by all America, the magic of color in the home is here to stay.

Modernize your cellar with the gleaming blue of the "Richardson" Square Cased Boiler. Transform it into a play room, card room, billiard room, a den or any of the extra rooms that are part of the modern home. The Boiler can be kept clean as any piece of furniture and it will retain its beautiful finish for years and years.

Finish

The outer casing is finished with high lustre blue Japan that is durable, easy to clean and will not crack or peel. The doors, ashpit front and smoke box, in other words, all cast iron parts not covered by the casing are coated with black enamel.

Insulation

The lining or insulation of the "Richardson" boiler is 1" 2-ply asbestos air cell and is attached to the cases when shipped. It thus cannot be damaged in transit or in handling. The air space between the heating unit and the outer casing provides extra heat conserving insulation.

Construction

The ashpits are high and are fitted with a large door to permit the easy removal of ashes.

The firepots have deep fire chambers which will carry fire and generate heat for a long time without attention.

The steam dome on the "Richardson" Square Cased Boiler is so constructed as to allow large water and steam space which acts as a reservoir of heat so that large demands in extreme weather can be easily met.

The "Richardson" Square Cased Boiler retains all the proven, time tested advantages of the round boiler—the most successful type for home heating. It is **guaranteed** by the Richardson & Boynton Company who have manufactured heating and cooking apparatus for over 90 years.



For further details and literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
UTICA, N. Y.

Richardson Round Sectional Boilers for Steam, Vapor and Hot Water

These boilers are particularly adapted for private residences as they are simple and easy to operate, powerful and economical. They have large feed doors for firing and ample cleanout and ashpit doors and will carry sufficient fire over night so that the house is warm in morning. Water boilers have a special dome section for water heating and wall waterways through boiler are small producing a rapid circulation of water over heating surfaces and absorbing the heat units as they are given off from the fire and heated gases. All heating surfaces are within boiler and surrounded by water passages.

Construction

Round boilers for steam and hot water made up of several sections. The base section is fitted with "Perfect" revolving triangular grate bars which are durable and very effective

in keeping the fire clear and free from clinkers. Ash pits have large doors, fitted with an air inlet butterfly draft door for supplying oxygen to fuel. This draft door is operated from the automatic damper regulator of steam boilers, and with a ratchet on water boilers.

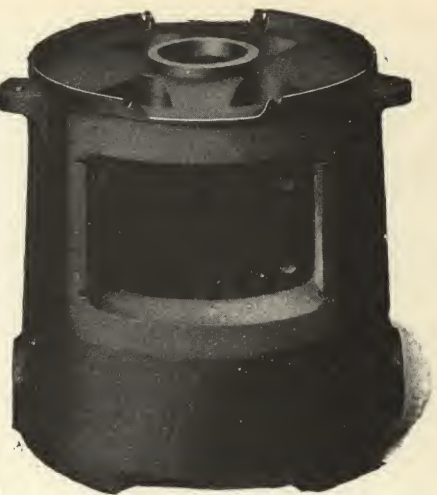


Base and
Grate Section

The fire pot section is above the ash pit, is heavily corrugated on the inside. Fire pot is deep so that fire can be run at low rate of combustion and only require attention at long intervals. These sections are fitted with two openings in the

rear so water for domestic purposes can be heated from a coil in fire box. Flue openings are arranged so that fire travel is staggered — the opening in one section going below the heating surfaces in the section above—so there is not waste of heat.

Connections between all sections are made with extra heavy machine cut tapered cast iron nipples fitted into tapered openings in the section, thus



Fire Pot Section



Dome Section

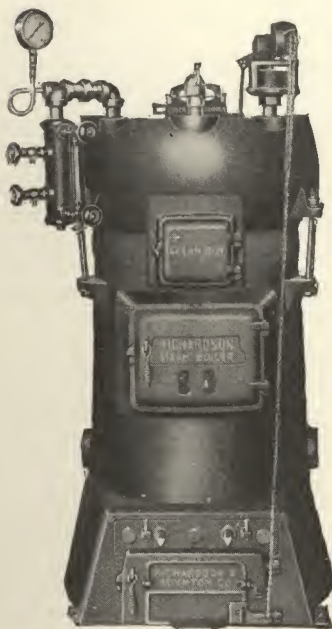
making a perfectly tight iron to iron joint, without the use of any lead or packing.

The top or dome section offers a large amount of heating surface which produces ample heat with an economical consumption of fuel.

Every Richardson Boiler has a deep fire chamber with corrugated sides and over the fire a large amount of active heating surface, properly proportioned for the rating of boilers.

All boilers have cored openings in fire pot for coil; and steam boilers have tapping in dome section, right side, for indirect water heater. Steam Boilers can be fitted with fusible plugs.

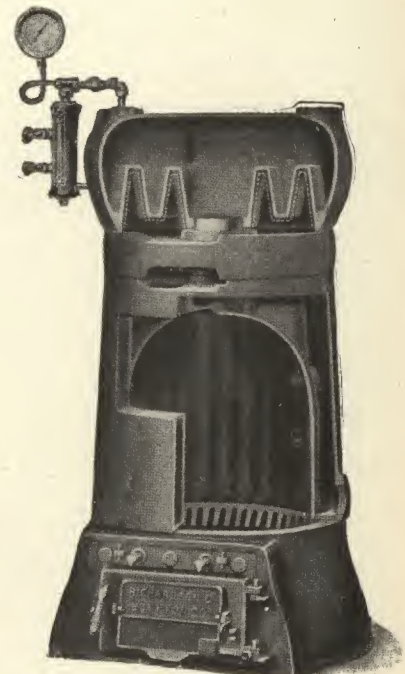
All boilers can be arranged with grates for burning the smaller sizes of coal.



Steam—Front View



Water—Front View



Steam—Sectional View



For further details and literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
UTICA, N. Y.

RICHARDSON BOILERS FOR STEAM AND HOT WATER HEATING—(Continued)

19 Series Round Sectional

| Steam | | | | | | | |
|-------|-----------------------------|-------------------------|--------------------|--------------------------|----------------------|---------------------|-----------------------|
| No. | Height to Top Outlet Inches | Nom. Diam. Grate Inches | Grate Area Sq. Ft. | Height Water Line Inches | Outlets No. and Size | Inlets No. and Size | 8 Hour Rating Sq. Ft. |
| 1190 | 47½ | 19 | 1.97 | 42½ | 2-2½ | 2-2½ | 300 |
| 1191 | 51½ | 19 | 1.97 | 46½ | 2-2½ | 2-2½ | 350 |
| 1192 | 55½ | 19 | 1.97 | 50½ | 2-2½ | 2-2½ | 75 |
| Water | | | | | | | |
| 1190 | 45¼ | 19 | 1.97 | ..... | 2-2½ | 2-2½ | 500 |
| 1191 | 49¼ | 19 | 1.97 | ..... | 2-2½ | 2-2½ | 575 |
| 1192 | 53¼ | 19 | 1.97 | ..... | 2-2½ | 2-2½ | 625 |

Size of smoke-pipe 19 in. Series, 8 in.

28 Series Round Sectional

| Steam | | | | | | | |
|-------|-----------------------------|-------------------------|--------------------|--------------------------|----------------------|---------------------|-----------------------|
| No. | Height to Top Outlet Inches | Nom. Diam. Grate Inches | Grate Area Sq. Ft. | Height Water Line Inches | Outlets No. and Size | Inlets No. and Size | 8 Hour Rating Sq. Ft. |
| 1281 | 55¼ | 28 | 4.28 | 51 | 2-3½ | 2-3½ | 875 |
| 1282 | 59¼ | 28 | 4.28 | 55 | 2-3½ | 2-3½ | 950 |
| 1283 | 63¼ | 28 | 4.28 | 59 | 2-3½ | 2-3½ | 1025 |
| Water | | | | | | | |
| 1281 | 53¼ | 28 | 4.28 | ..... | 2-3½ | 2-3½ | 1350 |
| 1282 | 57¼ | 28 | 4.28 | ..... | 2-3½ | 2-3½ | 1550 |
| 1283 | 61¼ | 28 | 4.28 | ..... | 2-3½ | 2-3½ | 1675 |

Size of smoke-pipe 10 in.

End Feed Square Sectional Boilers for Steam, Vapor and Water

These boilers are made in sizes to meet any steam, hot water or vapor heating requirement. Their principal features are the ease with which they are operated, their ability to carry their ratings for long periods and economical operating expense. This means securing the proper proportion and arrangement of the heating surface to the grate area with large flues, admitting of a low rate of combustion.

Richardson boilers present a large amount of correctly proportioned direct heating to the fire, yet with a long fire travel to hold back gases and prevent their too rapid escape to the smoke outlet. Equipped with deep fire pots and high combustion chambers. Ample provision has been made for easy firing and cleaning. Two large upper doors give access to flue surface for cleaning. Fire door is high and wide and through slicer door all parts of grate can be thoroughly cleaned. Ash pit is high and large permitting easy removal of ashes. All boilers have cored openings in back section for coil; and steam boilers are tapped on third section from front (right side) for indirect water heat. Steam boilers can be fitted with fusible plugs.

Grate bars are extra heavy sectional shaking and dumping pattern, operated in sections from the front of the boiler and controlled by a lock plate permitting the bars to be shaken, dumped or locked in position, as desired. Grates can be furnished for burning either large or small size coal.

Any connections between the sections are made with extra heavy cast iron machine cut tapered slip nipples fitted into tapered openings in the section and making the boiler absolutely tight.

Guarantee

Every Richardson Boiler is sold under a guarantee as to its perfection in manufacture and its ability to carry the rating shown in our printed matter, providing that a sufficient amount of radiation is installed, the piping system properly run, and the boiler connected to a flue of sufficient size and draft for the size of the fire box.

21 Series End Feed Sectional

| Steam | | | | | | |
|-------|---------------------|--------------------|-------------------|-----------------|------------------------|-----------------------|
| No. | Total Length Inches | Grate Area Sq. Ft. | Water Line Inches | *Outlets Inches | Ashpit (Inside) Inches | 8 Hour Rating Sq. Ft. |
| 214 | 36 | 2.27 | 43 | 1-3 | 22x24½ | 500 |
| 215 | 42¼ | 3.01 | 43 | 1-3 | 22x30¼ | 650 |
| 216 | 48½ | 3.75 | 43 | 2-3 | 22x37 | 800 |
| 217 | 54¼ | 4.49 | 43 | 2-3 | 22x43¼ | 925 |

Castings only, Height, 49½ in. Width, 32 in.

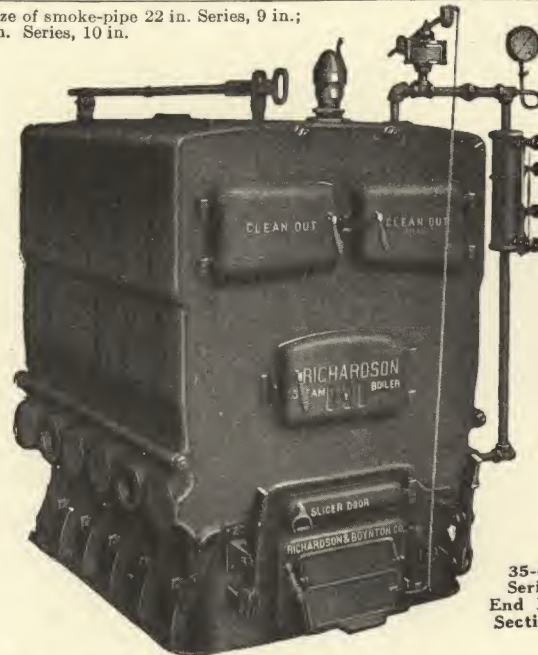
| Water | | | | | | |
|-------|-----|------|-------|-----|--------|------|
| 214 | 36 | 2.27 | ..... | 2-3 | 22x24½ | 800 |
| 215 | 42¼ | 3.01 | ..... | 2-3 | 22x30¼ | 1050 |
| 216 | 48½ | 3.75 | ..... | 3-3 | 22x37 | 1300 |
| 217 | 54¼ | 4.49 | ..... | 3-3 | 22x43¼ | 1500 |

*For each outlet there are two inlets of the same size—one on each side. Size of smoke-pipe, 9 in.

22 and 25 Series Round Sectional

| Steam | | | | | | | |
|-------|-----------------------------|-------------------------|--------------------|--------------------------|----------------------|---------------------|-----------------------|
| No. | Height to Top Outlet Inches | Nom. Diam. Grate Inches | Grate Area Sq. Ft. | Height Water Line Inches | Outlets No. and Size | Inlets No. and Size | 8 Hour Rating Sq. Ft. |
| 1221 | 53 | 22 | 2.64 | 48¼ | 2-2½ | 2-2½ | 450 |
| 1222 | 57 | 22 | 2.64 | 52¼ | 2-2½ | 2-2½ | 500 |
| 1223 | 61 | 22 | 2.64 | 56¼ | 2-2½ | 2-2½ | 550 |
| 1251 | 54¼ | 25 | 3.41 | 49½ | 2-3 | 2-3 | 625 |
| 1252 | 58¼ | 25 | 3.41 | 53½ | 2-3 | 2-3 | 675 |
| 1253 | 62¼ | 25 | 3.41 | 57¼ | 2-3 | 2-3 | 725 |
| Water | | | | | | | |
| 1221 | 50½ | 22 | 2.64 | ..... | 2-2½ | 2-2½ | 750 |
| 1222 | 54½ | 22 | 2.64 | ..... | 2-2½ | 2-2½ | 825 |
| 1223 | 58½ | 22 | 2.64 | ..... | 2-2½ | 2-2½ | 900 |
| 1251 | 52 | 25 | 3.41 | ..... | 2-3 | 2-3 | 1025 |
| 1252 | 56 | 25 | 3.41 | ..... | 2-3 | 2-3 | 1100 |
| 1253 | 60 | 25 | 3.41 | ..... | 2-3 | 2-3 | 1200 |

Size of smoke-pipe 22 in. Series, 9 in.;
25 in. Series, 10 in.



35-42
Series
End Feed
Sectional

25 Series End Feed Sectional

| Steam | | | | | | |
|-------|---------------------|--------------------|-------------------|-----------------|------------------------|-----------------------|
| No. | Total Length Inches | Grate Area Sq. Ft. | Water Line Inches | *Outlets Inches | Ashpit (Inside) Inches | 8 Hour Rating Sq. Ft. |
| 255 | 48¼ | 4.57 | 48¼ | 2-3½ | 27½x35½ | 1000 |
| 256 | 56 | 5.70 | 48¼ | 2-3½ | 27½x42¾ | 1250 |
| 257 | 63¼ | 6.83 | 48¼ | 2-3½ | 27½x50 | 1500 |
| 258 | 70½ | 7.97 | 48¼ | 2-3½ | 27½x57¼ | 1700 |

Castings only, Height, 55 in. Width, 39 in.

| Water | | | | | | |
|-------|-----|------|-------|------|---------|------|
| 255 | 48¼ | 4.57 | ..... | 2-3½ | 27½x35½ | 1600 |
| 256 | 56 | 5.70 | ..... | 3-3½ | 27½x42¾ | 2000 |
| 257 | 63¼ | 6.83 | ..... | 3-3½ | 27½x50 | 2400 |
| 258 | 70½ | 7.97 | ..... | 3-3½ | 27½x57¼ | 2800 |

*For each outlet there are two inlets of the same size, one on each side. Size of smoke-pipe, 12 in.

35 Series End Feed Sectional

| Steam | | | | | | |
|-------|---------------------|--------------------|-------------------|-----------------|------------------------|-----------------------|
| No. | Total Length Inches | Grate Area Sq. Ft. | Water Line Inches | *Outlets Inches | Ashpit (Inside) Inches | 8 Hour Rating Sq. Ft. |
| 355 | 47¼ | 7.85 | 56 | 2-4 | 39x33¼ | 1950 |
| 356 | 55½ | 9.81 | 56 | 2-4 | 39x41½ | 2400 |
| 357 | 64 | 11.75 | 56 | 3-4 | 39x50 | 2850 |
| 358 | 72¼ | 13.70 | 56 | 3-4 | 39x58¼ | 3300 |
| 359 | 80½ | 15.65 | 56 | 3-4 | 39x66½ | 3750 |

Castings only, Height, 63 in. Width, 48 in.

| Water | | | | | | |
|-------|-----|-------|-------|-----|--------|------|
| 355 | 47¼ | 7.85 | ..... | 3-4 | 39x33¼ | 3125 |
| 356 | 55½ | 9.81 | ..... | 3-4 | 39x41½ | 3850 |
| 357 | 64 | 11.75 | ..... | 4-4 | 39x50 | 4575 |
| 358 | 72¼ | 13.70 | ..... | 4-4 | 39x58¼ | 5300 |
| 359 | 80½ | 15.65 | ..... | 5-4 | 39x66½ | 6025 |

*For each outlet there are two inlets of the same size, one on each side. Size of smoke-pipe, 14 in.



For further details and literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
UTICA, N. Y.



Reflecting

the real VALUE of the Home

EQUITY in the investment—
 Quality in the material—
 Economy in the upkeep—Safety
 in operation! The home with a
 Richardson & Boynton boiler car-
 ries these impressive guarantees.
 The entire structure reflects the
 integrity of a builder who selects
 the heating plant conscientiously.

*Richardson & Boynton Company for ninety years has been
 manufacturing heating equipment, which is warming the homes
 of millions. As manufacturers of all types of heating equip-
 ment we can give you unbiased advice upon your request.*

*In better homes you will find Richardson & Boynton Com-
 pany heating equipment.*



For further details and
 literature, write to:

RICHARDSON & BOYNTON CO.

NEW YORK CITY
 UTICA, N. Y.

SPENCER MAGAZINE FEED HEATERS

Manufactured by

SPENCER HEATER COMPANY

Plant and General Offices: Williamsport, Pa.

Division of Lycoming Manufacturing Company

Sales Representatives in Principal Cities



A Spencer Heated home is comfortable, morning, noon and night.

WHY Spencer Design and Construction Insure Such Remarkable Results in Economy, Convenience and Comfort from No. 1 Buckwheat:

1st—While any fuel used in any ordinary heater may be burned in a Spencer, the Spencer is especially designed to burn No. 1 Buckwheat. This small size of Anthracite costs an average of \$6 less per ton than the larger sizes of the same coal which are required for ordinary furnaces.

2nd—A Spencer burns no more tons of No. 1 Buckwheat than the ordinary furnace does of the larger sizes that average twice the cost.

3rd—No. 1 Buckwheat will be more completely consumed than larger sizes because the fire can more readily penetrate the smaller pieces of coal.

4th—Besides the three-fold economy of cheaper coal, better combustion and less work, a Spencer gives you the comfort and healthfulness of steadier heat.

5th—A Spencer Heater requires attention but once or twice a day (depending upon the severity of the weather) because it has a magazine that holds a day's supply of No. 1 Buckwheat.

6th—Coal feeds down automatically by gravity over sloping surfaces of the fire bed. It feeds only as fast as the fuel on the grates burns to ash; slowly to a slow fire, more rapidly to a brisk one.

Every Spencer is Its Own Night Fireman

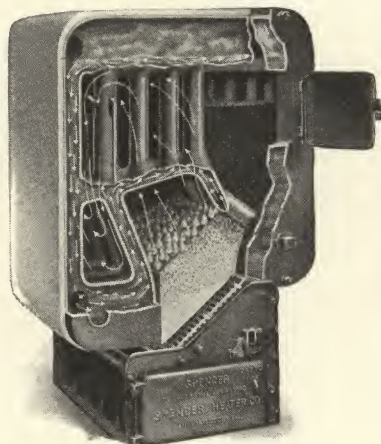
7th—The fire bed remains of uniform thickness, never choked with a mass of fresh fuel, never burning thin. This regular feed and steady combustion save fuel, because a lot of heat or unburned gases do not escape up the chimney.

8th—The steady rate of combustion, made possible by the even thickness of the fuel bed, provides uniform heat in the house—a source of health as well as comfort.

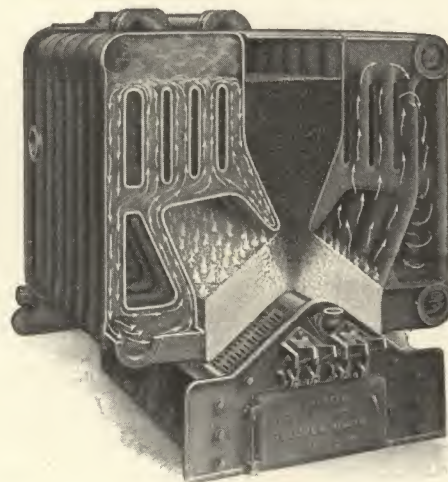
9th—A Spencer Heater requires no different chimney or flue construction from that which is standard for any other heater of equal capacity.



Spencer Junior Hot Water Heater for the small home of to 8 rooms, for garages, small office and other buildings.



Interior view of No. 1 Spencer Heater, sectional type, for average home. Made for steam, vapor or hot water.



No. 2 Spencer Heater, a double grate sectional heater for larger residences and other buildings of moderate size, using steam, vapor or hot water systems.



For further details and literature, write to:

SPENCER HEATER COMPANY, Williamsport, Pa.

Spencer Heater Company—Magazine Feed Heaters—(Cont'd)

Commonly Accepted Standards of Heating Convenience and Economy are Out-of-Date

Too many people accept as a matter of course, heating inconveniences that are little short of ridiculous in these days of more comfortable living. All the development of home equipment has been toward the reduction of drudgery, greater freedom from the confining restrictions of four walls and the ever-present servant problem.

For thirty years and more, the needless drudgery of continual stoking, the nuisance of frequent adjustments of the heater, the extravagant cost of the usual domestic sizes of coal, have been unknown to the owners of Spencer Heaters. Today, there are thousands of buildings, from bungalows to greater apartments, commercial and industrial buildings, which are kept comfortable twenty-four hours out of the twenty-four, with only a few minutes' attention to their Spencer Heaters once or, at most, twice a day.

Spencer is Equally Successful for Hot Water, Steam or Vapor Heating Systems

There is a size and type of Spencer Heater to cover every heating need from the five- or six-room house to the large building. They are made in sectional cast iron models for hot water, vapor and steam, and in steel tubular construction for steam or vapor for large installations.

Sold and Installed by Heating Contractors

Heating contractors, by thousands, are familiar with the operation of Spencer Magazine Feed Heaters, and can explain their many structural and design advantages.

Many of these are described in a valuable book, "The Business of Buying a Heating System." It contains much other helpful information for the builder and home owner, such as "How Much Should the Heating System Cost in Relation to the Total Building Investment?"; "What Part in the Operat-



ing Budget?"; "Heating Systems, Steam, Vapor and Hot Water"; "Fuels," and other important topics. Write for this book.

Dimensions and Capacities
Table "A"

| Heater Size | *Direct Cast Iron Radiation Loads Sq. Ft. Water | Coal Capacity Mag. and Grate Lbs. | Width Ins. | Length Ins. | Size of Outlets Inlets | Chimney Size Inches | Chimney Height Feet |
|-------------|---|-----------------------------------|------------|-------------|------------------------|---------------------|---------------------|
| B-4 | 300 | 80 | 34 1/2 | 17 | 3 | 8 1/2 x 8 1/2 | 24 |
| B-5 | 400 | 140 | 34 1/2 | 23 | 3 | 8 1/2 x 8 1/2 | 28 |
| B-6 | 500 | 200 | 34 1/2 | 29 | 3 | 8 1/2 x 8 1/2 | 32 |
| B-7 | 600 | 260 | 34 1/2 | 35 | 3 | 8 1/2 x 8 1/2 | 36 |

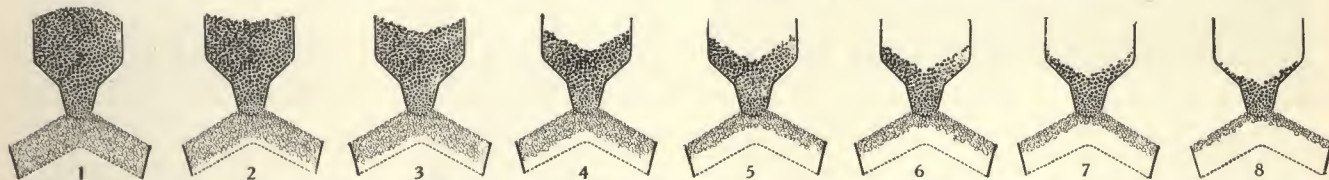
Dimensions and Capacities
Table "B"

| Heater Size | *Direct Cast Iron Radiation Loads Sq. Ft. | | Coal Capacity Mag. and Grate Lbs. | Width Ins. | Length Ins. | Size of Outlets Inlets | Chimney Size Inches | Chimney Height Feet |
|-------------|---|-------|-----------------------------------|------------|-------------|------------------------|---------------------|---------------------|
| | Steam | Water | | | | | | |
| 1-5 | 450 | 750 | 225 | 37 1/2 | 48 1/2 | 2-4 | 8 1/2 x 13 | 35 |
| 1-6 | 562 | 937 | 290 | 37 1/2 | 54 1/2 | 2-4 | 8 1/2 x 13 | 35 |
| 1-7 | 675 | 1125 | 355 | 37 1/2 | 60 1/2 | 2-4 | 8 1/2 x 13 | 40 |
| 1-8 | 787 | 1312 | 420 | 37 1/2 | 66 1/2 | 2-4 | 13 x 13 | 40 |
| 1-9 | 900 | 1500 | 485 | 37 1/2 | 73 1/2 | 2-4 | 13 x 13 | 40 |

Dimensions and Capacities
Table "C"

| Heater Size | *Direct Cast Iron Radiation Loads Sq. Ft. | | Coal Capacity Mag. and Grate Lbs. | Width Ins. | Length Ins. | Size of Outlets Inlets | Chimney Size Inches | Chimney Height Feet |
|-------------|---|-------|-----------------------------------|------------|-------------|------------------------|---------------------|---------------------|
| | Steam | Water | | | | | | |
| 2-6 | 975 | 1575 | 580 | 57 3/8 | 65 3/8 | 2-4 | 13 x 13 | 40 |
| 2-7 | 1200 | 1950 | 720 | 57 3/8 | 74 3/8 | 2-4 | 13 x 13 | 40 |
| 2-8 | 1500 | 2400 | 860 | 57 3/8 | 81 3/8 | 2-4 | 13 x 13 | 40 |
| 2-9 | 1800 | 2900 | 1000 | 57 3/8 | 87 3/8 | 2-4 | 13 x 13 | 40 |
| 2-10 | 2100 | 3400 | 1140 | 57 3/8 | 93 3/8 | 2-4 | 13 x 18 | 45 |
| 2-11 | 2240 | 3570 | 1280 | 57 3/8 | 99 3/8 | 2-4 | 13 x 18 | 45 |

*"Direct Cast Iron Radiation" figures for steam and water shown in tables are not the usual "commercial" ratings, but are conservative figures of the actual amount of radiation recommended for the boiler to carry in order to assure heat satisfaction.



Progressive drawings show how coal feeds out from the magazine of a Spencer Heater, covering the grates evenly and replacing burned coal only as fast as it is reduced to ash. Note how fire bed remains uniform. Magazine holds enough coal for a 24-hour run under normal winter operation.

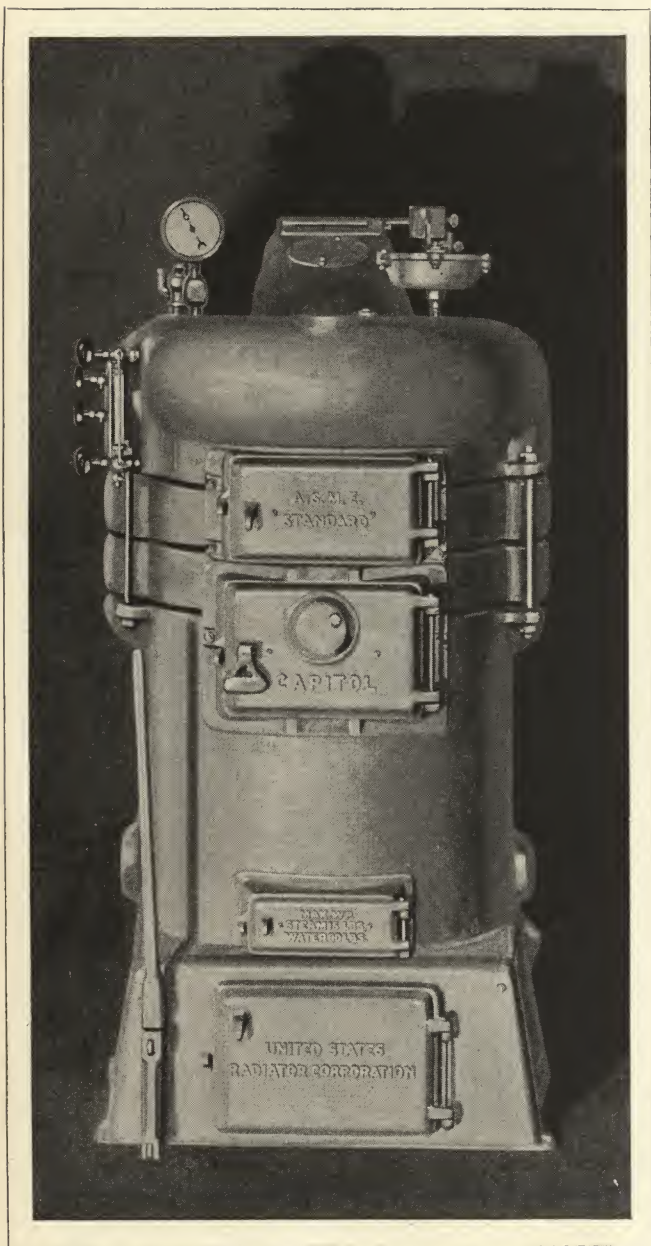
Your wife need not know you have a coal shovel, if you have a Spencer Heater. Your coal dealer's demands on your bank account will be cut in half. Yes, there is such a thing as true heat comfort, convenience and economy.



For further details and literature, write to:

SPENCER HEATER COMPANY, Williamsport, Pa.

Guaranteed Heating WITH Capitol Boilers AND RADIATORS



Study the sectional view at the right as well as the large illustration above. Note the roomy ash-pit, the big snug doors, the deep fire-pot, the long staggered fire travel and the ideal relation between grate area and heating surface, ingenious provisions for auxiliary air, the easy-action grates, the enlarged and stream-lined waterway to insure fullest circulation. Supplied for steam or hot water heat. Adapted to all standard fuels from coke to oil. Covered by the strongest guarantee in the industry: **Guaranteed Heating.**

HAD your home been built in 1925, you could not have had the many heating advantages conferred by this new Capitol Round Boiler.

For it is a late development and was first offered for installation about the middle of 1926. Home builders who were fortunate enough to secure one of the new Capitol Round Boilers for their homes immediately and completely corroborated our conviction that this boiler represents an utterly new and unparalleled efficiency in home heating equipment.

It could not be otherwise. 37 years of steadily progressive heating knowledge has gone into this boiler. Every constructive lesson learned in that period, every point of value developed in that many years of laboratory and field observation and testing, every proved feature making for fuel economy and utmost heating-results, was carefully engineered into this remarkable new boiler. Which explains why it is, in all sincerity, pronounced the perfect boiler for residence heating.

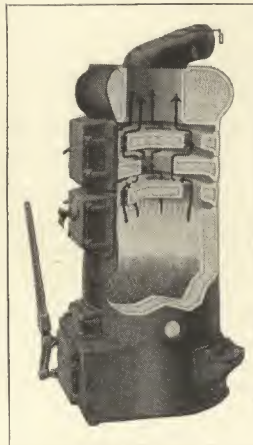
Yet a brand new boiler may be ten to twenty years behind the times, if it is made from designs developed ten to twenty years ago.

The Capitol Round Boiler is today's newest development. It sums up all the advantages of similar types which have gone before it. Nationally advertised, it is favorably known the country over, and thus makes a striking selling point in houses built for sale. Always, its high repute adds to resale value.

If your boiler is old, replace it with this new Capitol. If you are building one house to live in or a number of them to sell, specify this new Capitol.

What Size Shall You Install?

Capitol guaranteed heating answers that question scientifically. Under this iron-clad written guarantee, the total amount of radiator surface automatically selects the right sized boiler.



There are no uncertainties, no guessing, no worries. The boiler determined upon cannot be too small for fullest comfort on cold days. It won't be too costly and larger than your needs. Always, it will properly heat its full published amount of direct cast-iron radiation. If, under the stated conditions, it ever fails, the necessary additional capacity will be supplied absolutely without charge. Ask any heating contractor about the many superiorities of the new Capitol boiler. Or write for our interesting and informing book, **A Modern House Warming**, which in a friendly way discusses the entire heating question.



For further details and literature, write to:

UNITED STATES RADIATOR CORPORATION, Detroit, Mich.

UNITED STATES RADIATOR CORPORATION—DETROIT, MICHIGAN

Six Factories and Thirty-two Assembling Plants Serve the Country

Guaranteed Heating WITH **Capitol Boilers AND RADIATORS**

WHAT won for the Capitol such universal acclaim as the Radiator masterpiece?

Its classic beauty and harmonious grace that instantly impressed all observers. Its strength that was the perfected result of unhurried experiment and careful development. Its notable heating ability, approved as superior in tests made by the engineering laboratories of a great university.

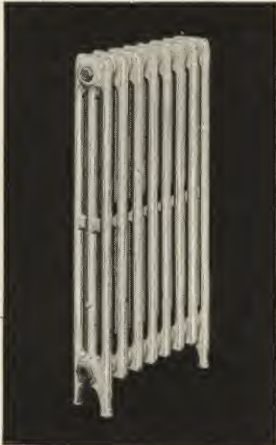
Its instant success was a forgone conclusion. For never has heating efficiency been clothed with greater symmetry. In profile or in full view it equally exhibits its classic beauty. Lines that melt in grace, contours of flawless perfection; every detail aids its capacity, not merely for more speedy transmission of heat, but for blending into the decorative scheme of any home without unduly accenting itself.

It is frankly a radiator, but so eloquent with dignity and grace that it needs no disguises, requires no concealments. The lacy openness which adds so much to its charm is the very factor which contributes markedly to its high rate of heat emission.

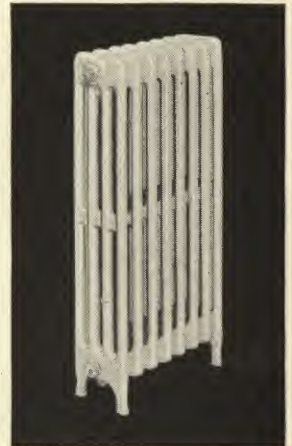
So emphatically superior in beauty and efficiency is this new Capitol that its very appearance immediately pushed all other types into the background as "old-fashioned."

For your home be sure you obtain the beauty and efficiency of these most modern radiators; nationally advertised and nationally known, they aid in selling houses quickly or add to resale value. Some one or more of the twenty-three types and sizes in either the floor or wall Capitol radiators will definitely and accurately fit your needs and conditions. And pleasantly enough there is no premium to pay. Prices of the new and vastly improved Capitol radiator are as low as those of the old-fashioned type.

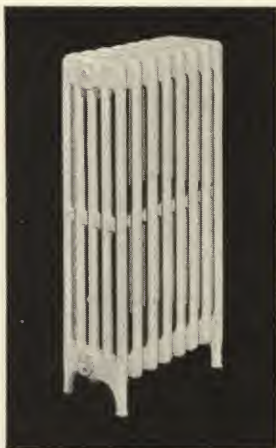
On request we shall be glad to send an illustrated brochure, giving detailed specifications. When you consult your contractor make certain that you are seeing the Capitol. Look for the "U. S." on the end plug.



Capitol Three Tube
Made in five heights from 20 inches to 36 inches. Especially desirable where an extremely narrow radiator is needed.



Capitol Four Tube
Made in five heights from 20 inches to 37 inches. Gives unusually large radiating surface where installation conditions or limited wall space require a narrow radiator.



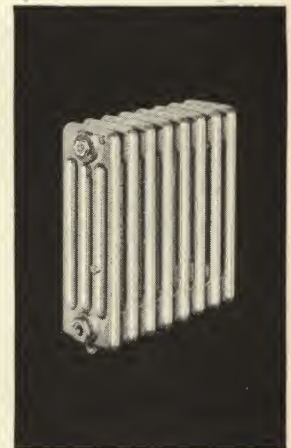
Capitol Five Tube
Made in five heights from 20 inches to 37 inches. A beautiful radiator that offers an unusually large amount of radiating surface per section.



Capitol Six Tube
Made in five heights from 20 inches to 37 inches. Exhibits the full Capitol beauty while meeting the demand for mass radiation.



Capitol Seven Tube
This window radiator is made in three heights from 13 inches to 20 inches. The 13-inch height is especially for conditions where the sills require unusually low radiators.



Capitol Wall Radiators
Any of the Capitol Radiators can be supplied without legs for wall bracket installation. Dimensions and heights are the same as those of the corresponding regular style Capitol.



For further details and literature, write to:

UNITED STATES RADIATOR CORPORATION, Detroit, Mich.

Weil-McLain

SCIENTIFIC COMBUSTION

BOILERS

Made by the

WEIL-McLAIN COMPANY

Executive Offices: 641 West Lake Street, Chicago

Manufacturing Div.: General Office: Michigan City, Ind.
Plants: Michigan City, Ind.; Erie, Pa.

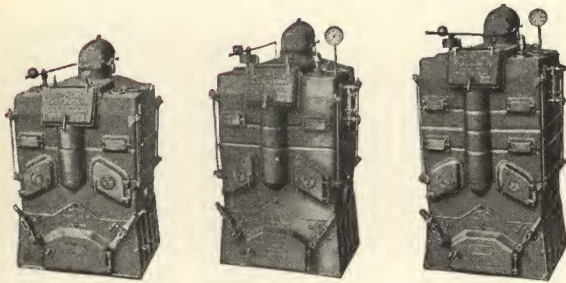
Jobbing Distributors and Warehouse Stocks in Over 50 Cities

SELF-FEED TYPE BOILERS

Burn Inexpensive Sizes of Hard Coal

Here we show and list only the home heating types of boilers. We also make square and smokeless types for apartments, office buildings, institutions, etc.

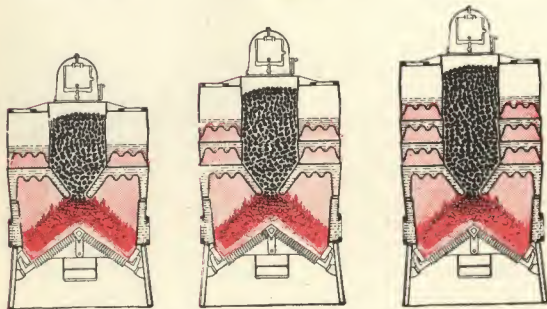
Send for catalog describing the particular boiler you are interested in. We make a complete line of boilers—one for every requirement.



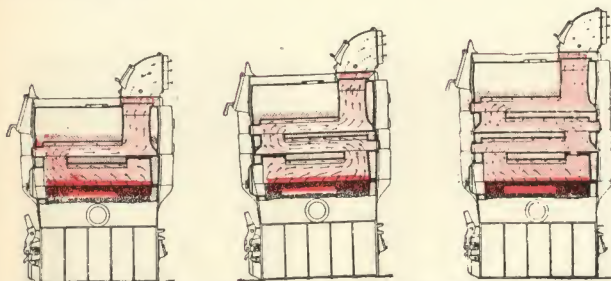
Four Series

Five Series

Six Series



Front sectional view showing the magazine and the corrugated heating surfaces.



Side sectional view showing the back-and-forth fire travel

Made in Three Series to Suit Various Chimney and Draft Conditions

The Four Series Boiler is made to fit in where draft from the chimney is doubtful, due to low building or faulty chimney construction.

The Five Series Boiler has long back-and-forth fire travel and extra supply of reserve fuel. It has the widest range of adaptability to chimney conditions.

The Six Series Boiler has longest fire travel and largest supply of reserve fuel. Most economical and efficient when the chimney is well built and high enough to develop good draft.

Self-Feed Boiler Sizes, Etc.

| Boiler Number Steam | Rating Sq. Ft. | Recommended Equivalent Direct Radiation Sq. Ft. | Height Water Line Inches | Asbestos Covering 1½ Ins. thick Lbs. | Chimney | |
|------------------------|-------------------|---|--------------------------------------|--|--------------------|----------------|
| | | | | | Size In. Inside | Height Feet |
| M6-S-4 | 650 | 325 | 39¾ | 300 | 8x12 | 35 |
| M6-S-5 | 950 | 475 | 45¼ | 350 | 8x12 | 40 |
| M6-S-6 | 1150 | 575 | 50¾ | 400 | 8x12 | 45 |
| M8-S-4 | 875 | 437 | 40¼ | 400 | 12x12 | 35 |
| M8-S-5 | 1200 | 600 | 46¼ | 450 | 12x12 | 40 |
| M8-S-6 | 1425 | 712 | 52¼ | 500 | 12x12 | 45 |
| Boiler Number Water | | | Height to Top Outlet Inches | | | |
| | | | | | Size In. Inside | Height Feet |
| M6-W-4 | 1075 | 537 | 48¼ | 300 | 8x12 | 35 |
| M6-W-5 | 1565 | 782 | 53¾ | 350 | 8x12 | 40 |
| M6-W-6 | 1900 | 950 | 59¼ | 400 | 8x12 | 45 |
| M8-W-4 | 1445 | 723 | 48¾ | 400 | 12x12 | 35 |
| M8-W-5 | 1980 | 990 | 54¾ | 450 | 12x12 | 40 |
| M8-W-6 | 2350 | 1175 | 60¾ | 500 | 12x12 | 45 |

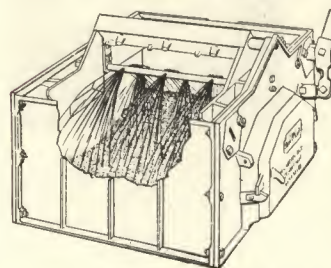
Grate Area, Tappings and Ash Base

| Size | Grate Area | Two Outlets | Two Inlets | Ash Base Inside, Inches |
|----------|--------------|-------------|------------|-------------------------|
| M6 Sizes | 4.00 sq. ft. | 4 in. | 4 in. | 32½x24½ |
| M8 Sizes | 5.33 sq. ft. | 4 in. | 4 in. | 32½x30¾ |

Recommended Minimum Chimney Sizes

| Size Boiler | 1 Boiler | 2 Boilers | 3 Boilers |
|-------------|--------------|--------------|--------------|
| M6-*4 | 8x12—35 ft. | 12x12—40 ft. | 12x16—40 ft. |
| M6-*5 | 8x12—40 ft. | 12x12—45 ft. | 12x16—45 ft. |
| M6-*6 | 8x12—45 ft. | 12x12—50 ft. | 12x16—50 ft. |
| M8-*4 | 12x12—35 ft. | 12x16—40 ft. | 16x16—40 ft. |
| M8-*5 | 12x12—40 ft. | 12x16—45 ft. | 16x16—45 ft. |
| M8-*6 | 12x12—45 ft. | 12x16—50 ft. | 16x16—50 ft. |

* "S" or "W" signifying Steam or Water.



The Ash Spray in Operation

A Clean Way to Handle Ashes

The turn of a valve wets the ashes as lightly or thoroughly as desired, eliminating the dirt and annoyance of ash dust.

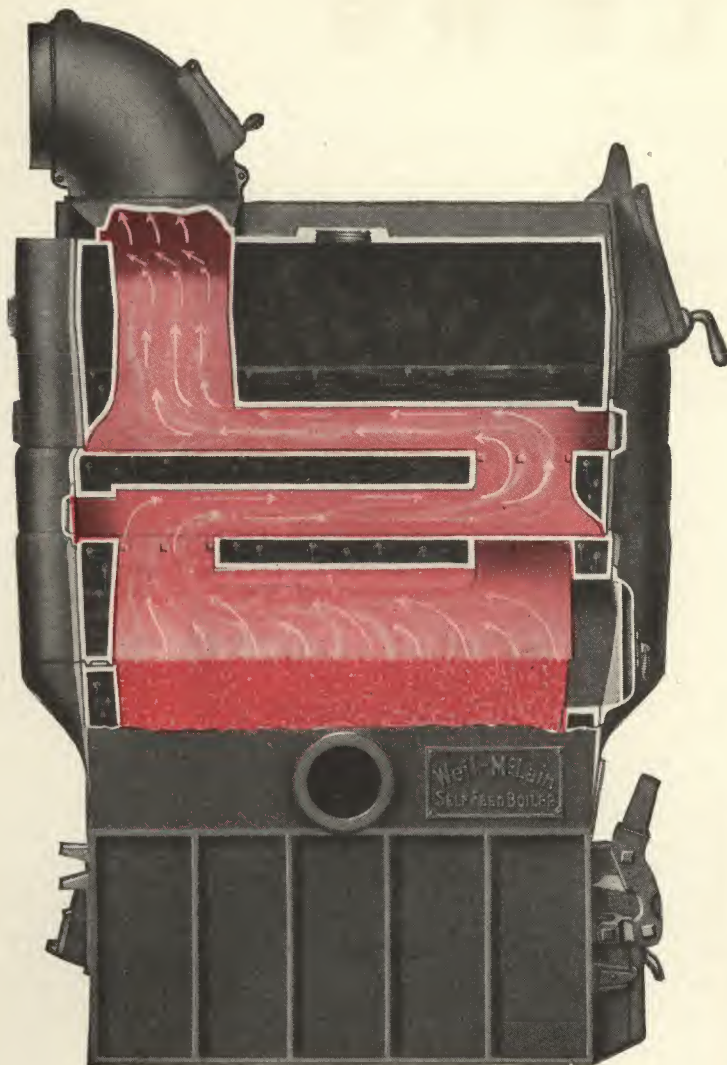


For further details and literature, write to:

WEIL-McLAIN COMPANY

641 West Lake Street
CHICAGO, ILL.

THE HIGHEST STANDARD OF CLEAN COAL-FIRED HEATING



Long Back-and-Forth Fire Travel

SELF-FEED BOILER LUXURY

You use a clean small coal that is easy to handle.

The magazine feeds the fuel and eliminates coal shoveling during the day.

You need not bank the fire at night.

You add fuel only when the reserve supply in the magazine becomes low.

Your regular attention is just an easy shaking of the grates morning and night.

An ash spray makes ash removal dustless.

Convenience

Efficiency

Economy

Self-feed
Weil-McLain
SCIENTIFIC COMBUSTION
BOILERS
Type

You Save Fuel and Get More Heat
Fuel-saving corrugations like this
~~~~~ in every section give more heat.

There are no short cuts to the chimney. A back-and-forth fire travel is the safeguard against waste.



Corrugated Heating Surfaces in Every Section



For further details and  
literature, write to:

**WEIL-McLAIN COMPANY**

641 West Lake Street  
CHICAGO, ILL.



ROUND

# Weil-McLain

## SCIENTIFIC COMBUSTION

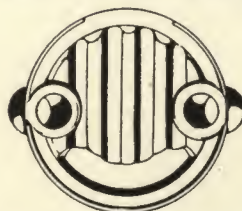
# BOILERS

TYPE

No Short Cuts to the Chimney—  
Back-and-Forth Fire Travel  
Is Final Safeguard Against Waste

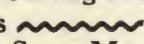


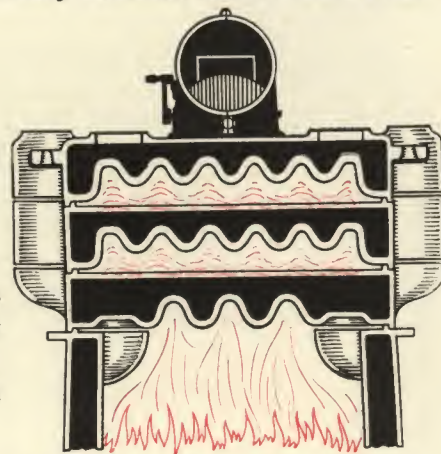
Fire Travel and Heating Surface Details



Scientific Combustion Develops More  
Heat and Ends Waste into  
the Ash Pit

You get increased efficiency and reduced chimney waste. You get extra heating surface—added heat-absorbing ability, without extra size in the boiler, and, therefore, without added cost. You get unusual boiler value.

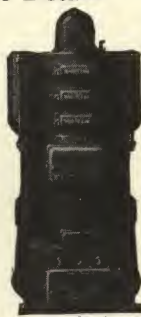
Fuel Saving Corrugations  
Like This   
in Every Section Save More Heat



Four Series

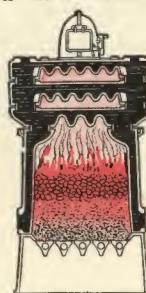
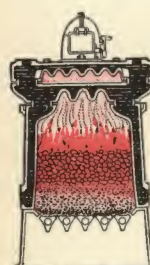


Five Series

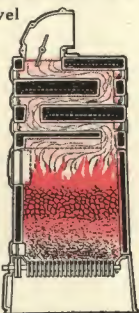
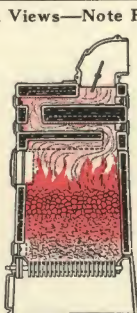
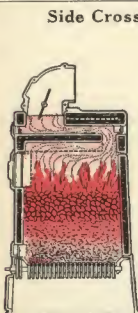


Six Series

Front Cross Section Views—Note Corrugations



Side Cross Section Views—Note Fire Travel



FOUR SERIES: For low chimneys, low basements and poor draft.  
FIVE SERIES: For average conditions of chimney and draft.  
SIX SERIES: For high chimneys and strong draft.

Round Type Steam Boiler  
Sizes, Ratings, Etc.

| Size<br>Boiler | Rating<br>Sq. Ft. | Height<br>to Top<br>Outlet<br>Inches | Grate<br>Area<br>Sq. Ft. | Height<br>Water<br>Line<br>Inches | Chimney                   |                |
|----------------|-------------------|--------------------------------------|--------------------------|-----------------------------------|---------------------------|----------------|
|                |                   |                                      |                          |                                   | Size<br>Inches,<br>Inside | Height<br>Feet |
| 4-S-17         | 400               | 48½                                  | 1.58                     | 41½                               | 8x8                       | 30             |
| 4-S-19         | 520               | 49½                                  | 1.97                     | 43½                               | 8x8                       | 30             |
| 4-S-22         | 780               | 51½                                  | 2.64                     | 44½                               | 10x10                     | 30             |
| 4-S-25         | 990               | 52½                                  | 3.41                     | 45½                               | 10x10                     | 30             |
| 4-S-28         | 1345              | 54½                                  | 4.28                     | 47½                               | 10x10                     | 30             |
| 4-S-31         | 1510              | 56                                   | 5.24                     | 48½                               | 12x12                     | 35             |
| 5-S-17         | 430               | 53½                                  | 1.58                     | 46½                               | 8x8                       | 30             |
| 5-S-19         | 560               | 54½                                  | 1.97                     | 48½                               | 8x8                       | 35             |
| 5-S-22         | 830               | 56½                                  | 2.64                     | 49½                               | 10x10                     | 35             |
| 5-S-25         | 1085              | 58½                                  | 3.41                     | 51½                               | 10x10                     | 40             |
| 5-S-28         | 1500              | 60½                                  | 4.28                     | 53½                               | 12x12                     | 40             |
| 5-S-31         | 1685              | 62½                                  | 5.24                     | 55                                | 12x12                     | 40             |
| 6-S-17         | 460               | 58                                   | 1.58                     | 52                                | 8x8                       | 35             |
| 6-S-19         | 600               | 59½                                  | 1.97                     | 53½                               | 8x8                       | 40             |
| 6-S-22         | 880               | 61½                                  | 2.64                     | 54½                               | 10x10                     | 40             |
| 6-S-25         | 1180              | 63½                                  | 3.41                     | 56½                               | 10x10                     | 45             |
| 6-S-28         | 1655              | 66½                                  | 4.28                     | 59½                               | 12x12                     | 45             |
| 6-S-31         | 1860              | 68½                                  | 5.24                     | 61½                               | 12x12                     | 45             |

Round Type Water Boiler  
Sizes, Ratings, Etc.

| Size<br>Boiler | Rating<br>Sq. Ft. | Height<br>to Top<br>Outlet<br>Inches | Grate<br>Area<br>Sq. Ft. | Chimney                   |                |
|----------------|-------------------|--------------------------------------|--------------------------|---------------------------|----------------|
|                |                   |                                      |                          | Size<br>Inches,<br>Inside | Height<br>Feet |
| 4-W-17         | 660               | 43½                                  | 1.58                     | 8x8                       | 30             |
| 4-W-19         | 860               | 44½                                  | 1.97                     | 8x8                       | 30             |
| 4-W-22         | 1290              | 45                                   | 2.64                     | 10x10                     | 30             |
| 4-W-25         | 1630              | 47                                   | 3.41                     | 10x10                     | 30             |
| 4-W-28         | 2220              | 48                                   | 4.28                     | 10x10                     | 30             |
| 4-W-31         | 2490              | 50½                                  | 5.24                     | 12x12                     | 35             |
| 5-W-17         | 710               | 48½                                  | 1.58                     | 8x8                       | 30             |
| 5-W-19         | 925               | 49½                                  | 1.97                     | 8x8                       | 35             |
| 5-W-22         | 1370              | 50½                                  | 2.64                     | 10x10                     | 35             |
| 5-W-25         | 1790              | 52½                                  | 3.41                     | 10x10                     | 40             |
| 5-W-28         | 2475              | 54                                   | 4.28                     | 12x12                     | 40             |
| 5-W-31         | 2780              | 56½                                  | 5.24                     | 12x12                     | 40             |
| 6-W-17         | 760               | 53                                   | 1.58                     | 8x8                       | 35             |
| 6-W-19         | 990               | 54½                                  | 1.97                     | 8x8                       | 40             |
| 6-W-22         | 1450              | 55½                                  | 2.64                     | 10x10                     | 40             |
| 6-W-25         | 1950              | 58                                   | 3.41                     | 10x10                     | 45             |
| 6-W-28         | 2730              | 60                                   | 4.28                     | 12x12                     | 45             |
| 6-W-31         | 3070              | 62½                                  | 5.24                     | 12x12                     | 45             |



For further details and  
literature, write to:

WEIL-McLAIN COMPANY

641 West Lake Street  
Chicago, Ill.





Mrs. Fred Sullivan, Fayette, Ohio

# Make Your House Into a Home by Installing a Clark Gas Producer

The insert at top of page is just one of thousands of homes that are enjoying the convenience of gas for all purposes.

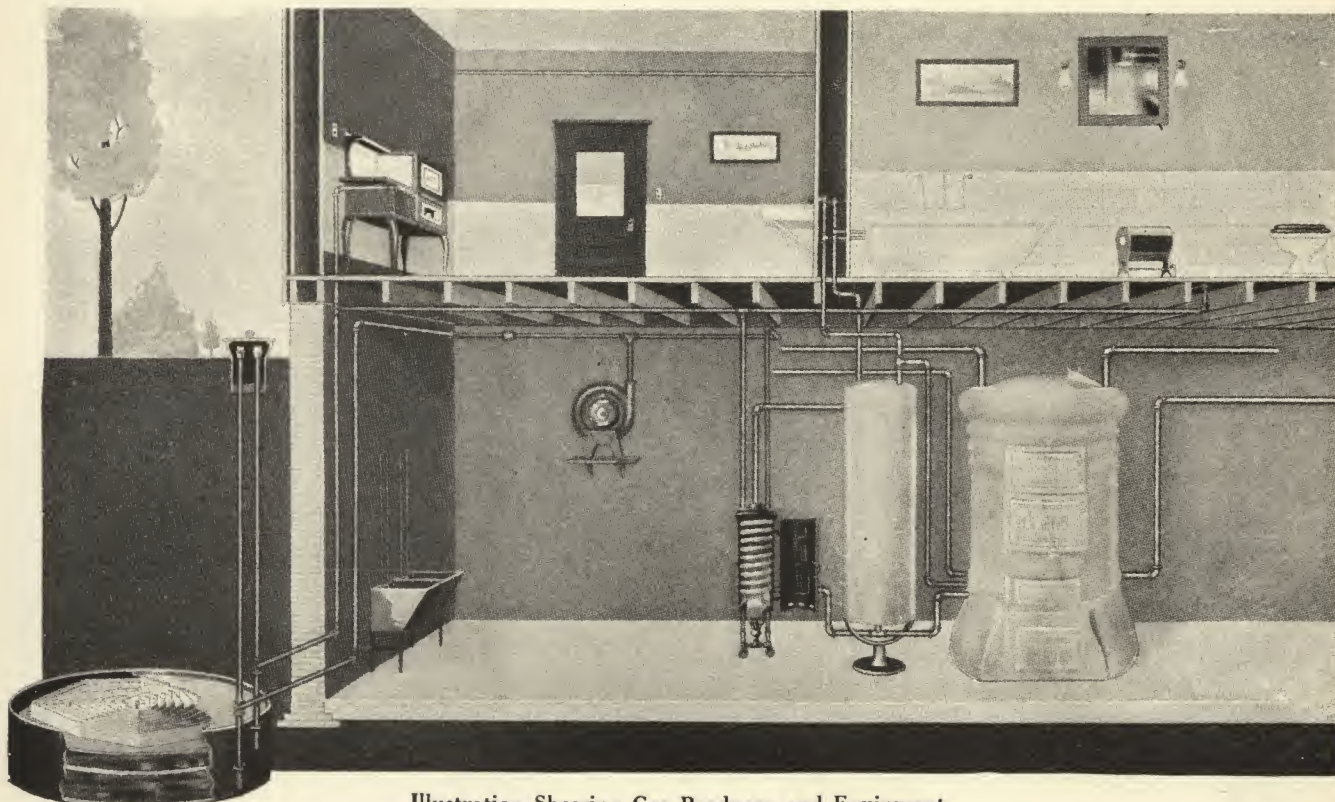


Illustration Showing Gas Producer and Equipment

## THE CLARK GAS PRODUCER

Has Solved the Problem of Supplying Gas for Suburban Homes,  
Farm Homes, Country Clubs, Hotels, Summer Resorts  
and Domestic Science Departments

### There Is No Substitute for Gas

Does away with gasoline stoves, coal oil, wood and coal. Absolutely no smoke or odor.

It produces a gas superior to and at about half the cost of city gas, for cooking, heating of bath water and for laundry purposes.

Absolutely safe. Has been passed upon by State Inspectors Bureaus. Insurance rates remain the same.

Easily installed. Never out of order. Lasts a life time.

We also manufacture large machines for industrial purposes.

**Turn on the Gas and Light It. That's All**



For further details and literature, write to:

**AMERICAN HEATING & LIGHTING CO., Morenci, Mich.**



# GAS SERVICE and EQUIPMENT

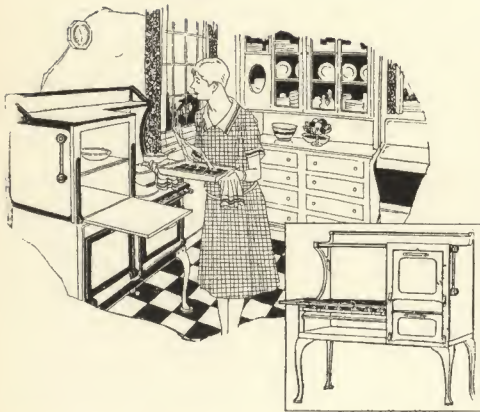
Recommended by Architects' & Builders' Service Committee

AMERICAN GAS ASSOCIATION

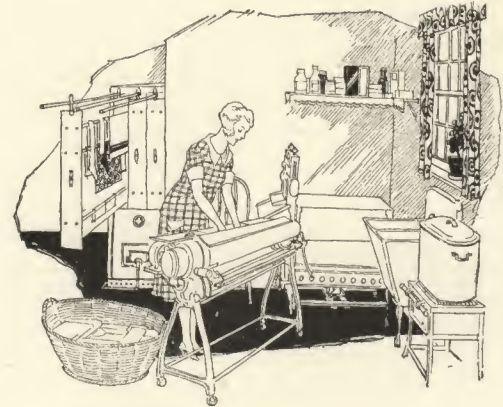
420 Lexington Avenue, New York, N. Y.

For Greater Home Comfort Plan Your Home to Use Gas for—

|               |                       |
|---------------|-----------------------|
| Cooking       | Laundrying and Drying |
| Water Heating | House Heating         |
| Refrigeration | Incineration          |



Gas has entered into a new era of usefulness in the home due to recent developments in the manufacture of appliances. Gas is now the most modern agent for cooking and refrigerating food, incineration of household waste, providing hot water for household cleanliness and for personal toilet, insuring comfortable house temperature at all seasons of the year, and for permitting clothes to be washed, dried, and ironed in the home under conditions of known cleanliness. These services make gas the world's greatest caterer to the fundamental needs of the home.



## Your Home Should Have a Kitchen Scientifically Planned for Today's Needs

Gas is the cheapest, quickest and best fuel for preparing food. All gas equipment should be selected and installed with reference to efficiency, economy, and reliability. It should include, among other conveniences, one of the efficient and beautiful 1928 gas ranges, equipped with oven heat control. This control eliminates guesswork in baking and cooking and permits the housewife to go about her other duties secure in the knowledge that the food will be cooked to a turn with a minimum of her attention.

A modern gas range transforms cooking from a drudgery to a pleasant responsibility. It requires less labor and gives the housewife more time for recreation and for the "larger things" of life.



## Every Modern Home Needs an Ample and Ever Ready Hot Water Supply

An ample supply of hot water is a most vital sanitary need of every household. At the turn of a faucet you should have plenty of hot water—always at the temperature desired and ready at the time you want it.

Every one knows the satisfaction derived from having hot water ready at any time for the tub or shower and for shaving, but it is only recently that scientists have proved that hot water is a vital necessity for the family health.

Furthermore, an unflinching supply of hot water means that dishes and laundry may be washed quickly and thoroughly, and that floors, pans, kettles and tubs may be kept spotless with the least effort. An automatic gas water heater guarantees an instant supply of hot water all year around.

## The Gas Refrigerator Is the Latest Improvement in Mechanical Refrigeration.

The Gas Refrigerator has no moving parts—simple—noiseless—nothing to wear out. It preserves food and eliminates much waste in the kitchen. The Gas Refrigerator is efficient in operation and the cost is low. There are no moving parts to get out of order and to cause noise. It is safe, silent and sure. See Figure 4.

## Enjoy the Convenience and Comfort Offered by a Modern Home Laundry

The gas-heated washer maintains the temperature of the water at the proper point to insure quickest results and greatest cleanliness.

The gas-heated ironer and clothes dryer make possible rapid ironing and drying of clothes, independent of weather conditions and under home surroundings of greatest sanitation.



## The Gas-Fired House Furnace—The Ultimate in Home Comfort

A house equipped with a gas-fired furnace gives positive assurance that the home will always be kept warm and comfortable automatically.

No dusty coal or ashes to be handled daily and to sift through the house. You need only attend to your gas furnace twice a year—when you turn it on in the Fall—when you turn it off in the Spring!

For the first time the space ordinarily required for coal bins and ash cans now becomes a clean and thoroughly useful part of the house.

Particularly in heat-insulated homes can the cleanliness, uniform temperature and labor-saving features of gas as a house-heating fuel be had under the most economical conditions.



For further details and literature, write to:

AMERICAN GAS ASSOCIATION

420 Lexington Ave.,  
NEW YORK, N. Y.



# Gas Service and Equipment—(Continued)

## Every Modern Home Requires a Satisfactory Method of Destroying Household Waste and Garbage

A gas-fired incinerator offers the most satisfactory method of eliminating household rubbish and table waste, thus reducing the fire hazard and contributing to the sanitation of the home and the health of the family. The basement stays clean and it is no longer necessary for the garbage can to decorate the yard until daily collection time.

## Your Home Should Be Piped to Use Gas for All of These Purposes

The cost of gas piping and flues, if put in at the time of erection, is relatively small when compared to the total cost of the building and compared to the increased rental value of the premises so equipped. The cost of piping varies from 0.10 to 1.0% of the total cost of the building, the latter figure covering the most elaborate piping layout required to cover every possible contingency.

### Demand Appliances



Bearing This Seal

## Tested and Approved Gas Appliances for Better Public Service

It is no longer necessary to be an expert mechanic in order to be sure of the mechanical efficiency and lasting satisfaction offered by the various types of gas appliances for cooking, water heating, house and room heating.

No gas appliances should be installed which are not susceptible of such adjustment as will enable the user to bring about the complete combustion of the gas supplied under all reasonable service conditions. Because it is somewhat difficult for those not experienced in the utilization of gas to recognize a satisfactory appliance, the American Gas Association has established an elaborate Testing Laboratory, which tests all types of gas appliances for safety, efficiency, and durability, and identifies all appliances meeting these requirements by the official Blue Star Laboratory Seal Shown below.

The Laboratory has been established for the protection of gas users, and the seal is not a manufacturer's trade mark, but a symbol applied to all appliances that meet basic requirements of safety, efficiency and durability. These requirements represent the best thought of the gas industry and of the several interested governmental bureaus on this subject. Home builders are urged to specify and install only appliances which have been tested and approved by the American Gas Association Appliance Testing Laboratory. A list of the trade names and model numbers, as well as the names of the manufacturers of approved appliances may be secured gratis from your local gas company, or from the American Gas Association, 420 Lexington Avenue, New York, N. Y.

## The Kitchen Range

The range is the most important piece of kitchen equipment. It is the most used housekeeping device.

The following are the essential qualities of a range which will give real satisfaction to the home owner:

1. Convenience: as to size, arrangement of parts, ease of control, and simplicity in cleaning;
2. Efficiency: in the use of fuel without waste;
3. Safety: correct construction to avoid hazards such as incomplete combustion;
4. Attractiveness: an important point in the opinion of the user.
5. Get one that bears the Blue Star Laboratory Seal of the American Gas Association.

## Hot Water Service

Automatic gas-fired water heaters of high efficiency and reliability are available in two main types. One type of water heater is the automatic storage heater (Fig. 1), consisting of an insulated water tank, a pilot light, thermostat and gas burner, so connected that the tank is always kept full of hot water ready for use. This type can be used on low pressure water supply and requires only a  $\frac{3}{4}$ " gas pipe and meter of corresponding size.

The other type is the automatic instantaneous water heater, which is suitable for water supply under a pressure of 10 lbs. or more at the highest faucet. On this type of heater the gas burners operate only while the water flows from the faucet (the burner being ignited by a pilot light and controlled by a valve operated by the water pressure). These heaters are both economical and efficient, but because of their large temporary demand for gas, require a larger supply of pipe and meter.

Where an installation is required at minimum cost, a non-automatic hot water service can be secured through the use of the circulating or tank type of gas water heater, manually controlled. Accessories can be had for this type of heater, whereby the gas can be automatically turned off after a given time. It is also possible to convert this type of heater to the automatic type later if desired.

Water heaters should not be installed in bathrooms or other closely confined spaces, and the length of the hot water lines should not be excessive. All automatic water heaters should be provided with flue connections.

## Auxiliary Room Heating

Individual gas room heaters provide a welcome service during many days of Fall and Spring in removing chill and dampness from the room without necessitating the operation of the main furnace, which is not designed for efficiency when operated at low temperature and for short periods. Room heaters are available in several types as follows:

1. The radiant heater, often called a fireplace heater.
2. Individual gas-fired radiators, steam or hot air type.
3. Portable heaters, not radiant type but flame type.
4. Wall heaters, flame type.

For general attractiveness the radiant heater (Fig. 2) is a superior form of room heating equipment, particularly when installed as fireplace unit. Gas-fired steam radiators may be tied into the regular heating system, either steam or hot water, and operated either as individual heating units, or utilized to supplement the regular heating system during severe weather.

Portable heaters are available in many styles and sizes, including even a small radiant type.



Fig. 1

The automatic storage water heater gives unflinching supply of hot water at uniform temperature. Note the flue connection and conical down-draft diverter.



For further details and literature, write to:

AMERICAN GAS ASSOCIATION

420 Lexington Ave.  
NEW YORK, N. Y.



## Gas Service and Equipment—(Continued)



Fig. 2

The radiant fireplace heater adds beauty and charm to any room. It is more efficient, cleaner and safer than a wood fire, and is as attractive.

### Laundry Equipment

Less than  $\frac{1}{2}$  the days of the year are suitable for drying clothes out-of-doors. The modern housewife appreciates nothing more than a laundry dryer, which permits her to dry the laundry quicker and better in her own basement, independent of the vagaries of the weather. Gas-fired dryers produce the same freshness, whiteness and freedom from mildew as outdoor drying and eliminate the labor of carrying the laundry in and out of the house.



Fig. 3

A compact and efficient central heating plant and gas-fired incinerator. The small space occupied and the cleanliness of operation make this basement available for living room. Boilers of this type are also used for water heating.

Several makes of washing machines are equipped with gas burners to raise the temperature of the wash water economically and quickly. Where the washing machine is not so equipped, it is advisable to install a laundry stove for boiling the wash or reheating water for the washing machine.

Ironing machines, utilizing gas for heating the rolls, operate more economically than those employing other heating methods.

### Heating the Whole House by Gas

The house equipped with gas-fired furnace (Fig. 3) gives positive assurance the home will always be kept warm and comfortable at a uniform temperature automatically, without any of the customary labor and attention. Gas furnaces are manufactured to meet all heating requirements, that is for steam heat, vapor heat, hot water heat, or warm air systems. As with solid fuels, each of these types has its special advantages.

### The Amount of Gas Required for House Heating

The uniformity of the heating value of gas as a fuel makes it possible to predict with great accuracy the amount required to heat a home of any given size, once the climatic conditions in the particular section of the country are taken into account.

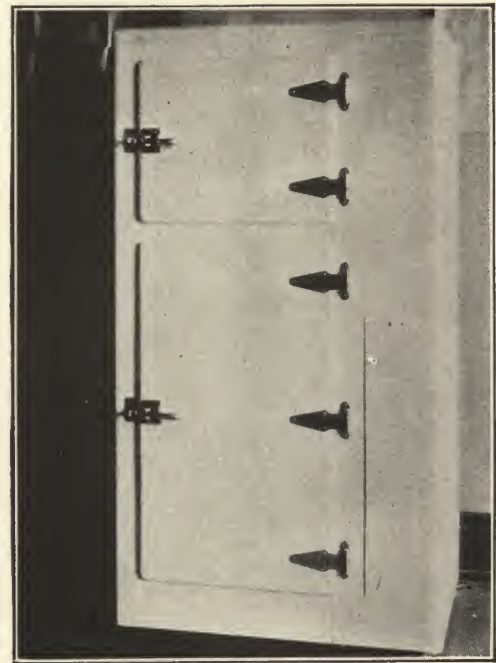


Fig. 4

One Type of Gas-Fired Refrigerator

The local gas company has a complete file of this information, and with data on the size of the house, construction of the walls and roof, can easily provide an accurate estimate of the cost of house heating by gas.

A recent development is to insulate the home to reduce the loss of heat. Wall and roof heat losses can be cut to  $\frac{1}{3}$  of their normal value by the use of insulation, with corresponding reduction in the amount of radiation and furnace size and operating expenses of heating the house. Oftentimes the savings in installation and cost of operation cover the added cost of insulating the house and make it possible to utilize gas for heating the home at little or no extra cost over solid fuel.

All gas-fired heating systems should be thermostatically controlled. The saving in fuel under these conditions and the uniform temperature made possible, more than equal the cost of the heat control equipment.



For further details and literature, write to:

AMERICAN GAS ASSOCIATION

420 Lexington Ave.  
NEW YORK, N. Y.



# Gas Service and Equipment (Continued)

## Incineration

The gas-fired incinerator makes possible the complete disposal of household garbage, safeguards health, and saves labor and eliminates the unpleasant odors and opportunity for the spread of disease resulting from accumulation of garbage between collections by the municipality. In addition to this, the use of the incinerator avoids the fire hazard caused by the accumulation of old boxes, paper, etc., about the house.

The installation of an incinerator (Fig. 3), requires a flue, and therefore this appliance should be located as near to the chimney as possible. Oftentimes it is possible to install a chute from the kitchen, which will save all the labor of carrying the refuse downstairs to the incinerator.

## Proper Piping for Domestic Gas Service

No less important than the quality of the appliance itself is the provision of adequate supply piping, in order to insure the safe and satisfactory performance of gas appliances. Piping of the proper size insures constant and sufficient gas pressure and results in uniform operation of the burners, giving complete combustion and insuring reliable performance.

Four factors determine the size of pipe needed; length of pipe, maximum gas consumption to be provided for, the allowable loss in pressure from the meter to the appliance, and the specific gravity of the gas. Your gas company will be glad to furnish you with proper pipe sizes to insure good service to your installation of gas appliances, upon request and without charge.

## The Gas Companies and Dealers Who Display this Sign Carry Tested and Approved Appliances



### THE SEAL OF DISTINCTION

**T**HIS Company confines its sales of gas ranges, space heaters and water heaters to those bearing the above Blue Star Seal of the Testing Laboratory of the American Gas Association.

This Seal is your guarantee that the appliance conforms to the basic standards of safety, efficiency and durability every gas appliance should meet.

These standards have been established by specialists of the U.S. Bureau of Mines, U.S. Public Health Service, U.S. Bureau of Standards and the American Gas Association.

*Demand gas appliances bearing this  
Blue Star Seal*

## Installation of Appliances

*As local conditions govern to a great extent the practice and installation of gas piping it is urged that before the contract is let for this important part of your building, your local gas company be consulted. The following general conditions, however, apply in practically every community throughout the country:*

Appliances shall be installed so that their continued operation will not in any way create a fire hazard because of adjacent flammable material. Vent pipes should not be run closer than 6 inches to unprotected ceilings and wooden joists.

Any appliance which consumes large quantities of gas, or which is automatically controlled and which depends upon a pilot light for ignition, shall be connected to an adequate flue, or flue pipe.

This rule is particularly significant with regard to the very large appliances such as central heating systems. These burn such large quantities of gas that every precaution should be taken. As further protection, it is advisable to insist on thermostatic or other forms of safety pilot which shall cut off the main gas supply in event that the pilot is extinguished.

No water heating appliance shall be installed in a closed system of water piping unless a water relief valve is provided.

The presence of a water meter will serve to make it a closed system, as water meters permit the flow in only one direction. It is to be recommended, then, that all water heating systems be operated with a pressure relief valve at some point.

## Miscellaneous Recommendations

Piping should not be laid under tile, parquet or mosaic floors, where it is possible to avoid it. Piping should not be run along the bottom of beams that are to be covered with lath and plaster, but should be run along the top of beams or joists, where it is possible, so that it will be accessible by raising the floor boards, which, when covering such piping, should be fastened with brass screws.

All parts of gas piping should be securely and permanently fastened to or supported from the building itself. If this is not done, sags or undue strains may later develop and the piping may leak or condensation may accumulate in the low points of the sags and interfere with the free flow of gas.

All piping should be graded toward the meter or outlet—condensation can then be removed if necessary. Meters should be set in a clean dry safe place, not subject to wide variations in temperature.

Your gas company has complete information on the size, price and instructions for installing all of the equipment mentioned herein, and will be glad to supply this information upon request without obligation or cost to you.

In addition, the Architects' and Builders' Service Committee of the American Gas Association will be glad to furnish specific answers to any question relating to the design, construction and installation of gas service in the home. This data will be furnished without charge.

Of necessity the appliances shown herein are of particular makes. However, the showing of a particular manufacturer's product here expresses no preference of the A. G. A. for that particular brand.



For further details and literature, write to:

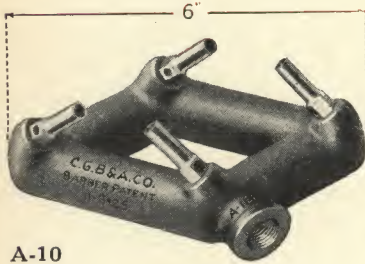
**AMERICAN GAS ASSOCIATION**

420 Lexington Ave.  
NEW YORK, N. Y.

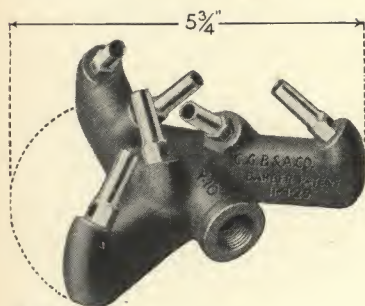


# BARBER PATENTED JET GAS BURNERS

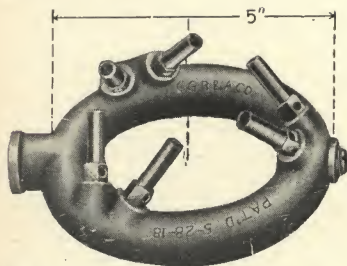
## *Should be in the Water Heater You Buy*



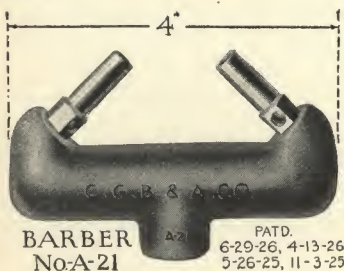
A-10



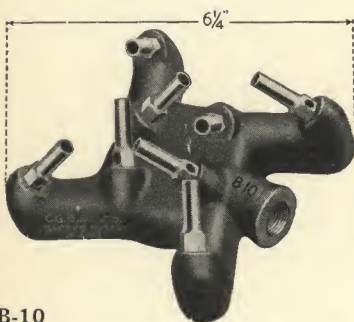
Y-10



K-10



BARBER  
No. A-21



B-10

A heater is only as good as its burner—that's why water heaters equipped with Barber Patented Jet Gas Burners are being advocated by leading engineers.

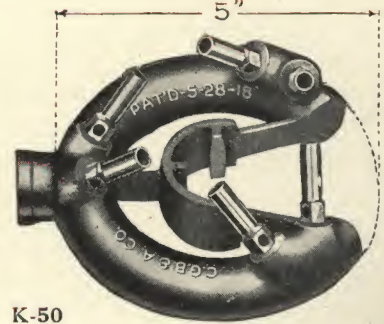
On this page are nine of the many Barber Patented Jet Gas Burners which are used in various gas water heaters of the best types. They provide the true economy that always goes hand in hand with top quality.

Barber Burners cannot be affected by corrosion or condensation. They will not back-fire or deposit carbon—on any gas pressure. They require no adjustment, regardless of pressure or quality of gas.

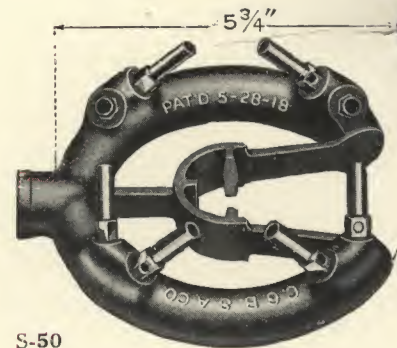
Auxiliary air is introduced above the gas orifices, thereby causing a pre-mixture of gas and air in the jet tubes. As the pre-mixture leaves each pair of jets a vacuum is created which draws into the flame such additional air as is required to develop *perfect* combustion on increased pressure.

**Barber Patented Jet Gas Burners are the result of over ten years of engineering research and are the last word in gas burner development. For trouble-free service and maximum economy be sure the gas water heater you buy is equipped with a BARBER. See also page opposite.**

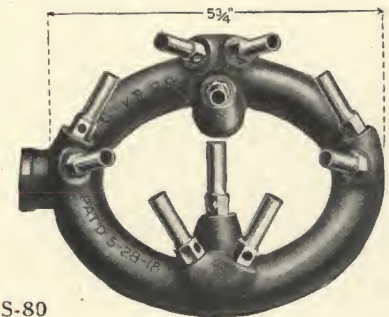
Other Products:  
See Pages 364-365



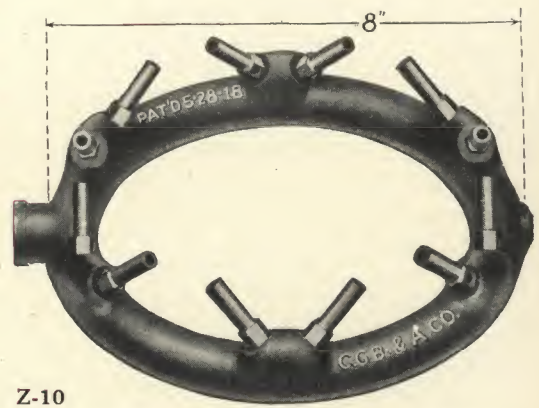
K-50



S-50



S-80



Z-10



For further details and literature, write to:

**The CLEVELAND GAS BURNER & APPLIANCE CO.**



# BARBER PATENTED JET GAS BURNERS

## Will Convert Your Choice of Furnaces into a Gas Heater

If you are building a new home, choose the coal-burning appliance that best meets your needs. Then equip it with a Barber Gas Burner. Those who wish to modernize homes already built should install a Barber Burner in the furnace or boiler now in use.

Enjoy a clean home, free from coal dust, ashes and smoke. Enjoy a comfortable home with uniform temperature "just as you want it" day and night.

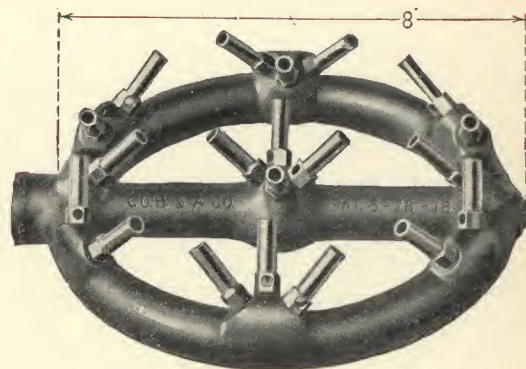
Enjoy freedom from furnace drudgery—the everlasting shoveling of coal and ashes and never-ending "cleaning up." Enjoy healthful heat—properly regulated heat—and no drastic changes.

Enjoy economical heat. Use only the amount of gas needed to maintain even heat. And pay for this fuel *after* you have burned it—not in advance.

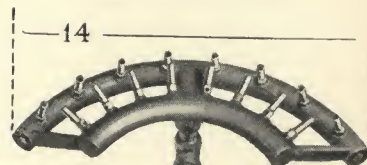
Gas is the ideal fuel. The Barber Patented Jet Gas Burner provides the scientific way to burn it—the carefree way—the economical way.

Please refer to pages — and — for additional information on this important subject. The Barber Burners illustrated here are a few of the many used in converting warm air furnaces, steam, vapor and hot water boilers into modern gas heaters.

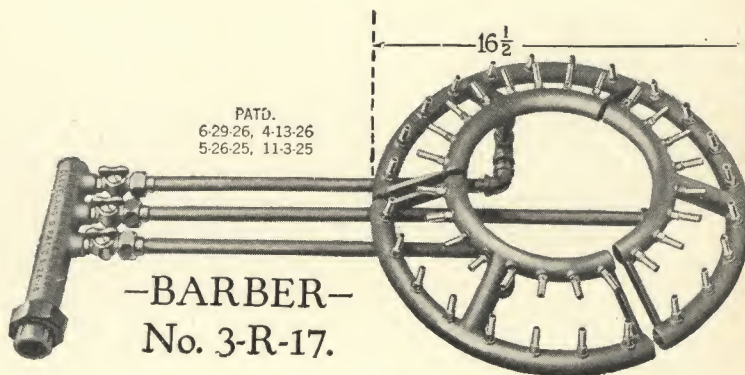
**It costs nothing to investigate Barber Burners. Send us the manufacturer's name, trade name and number of your heating appliance and we will supply complete information.**



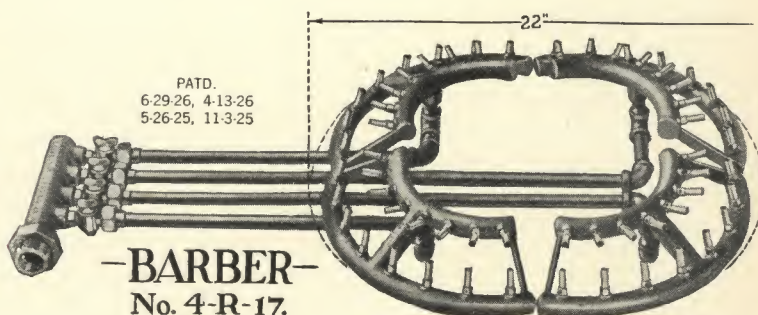
Z-20



—BARBER—  
No. 2-R-17.



—BARBER—  
No. 3-R-17.



—BARBER—  
No. 4-R-17.

**The CLEVELAND GAS BURNER & APPLIANCE CO.**  
**Burner Specialists**

**3702-04 Superior Avenue,**

**Cleveland, Ohio**



# New Ideal Water Heaters for Gas and Coal

Manufactured by

**AMERICAN RADIATOR COMPANY**

General Sales Offices, 1807 Elmwood Ave., Buffalo, N. Y.

## BRANCH SALES OFFICES

Atlanta, Ga.—232 Peachtree St.  
Baltimore, Md.—1308 Lexington Bldg.  
Boston, Mass.—129-131 Federal St.  
Buffalo, N. Y.—374 Delaware Ave.  
Chicago, Ill.—816 S. Michigan Ave.  
Cincinnati, O.—710 Gwynne Bldg.  
Cleveland, O.—1294 E. 55th St.  
Denver, Colo.—24th & Blake Sts.

Detroit, Mich.—1344 Broadway  
Indianapolis, Ind.—900 N. Senate Ave.  
Kansas City, Mo.—906 Davidson Bldg.  
Milwaukee, Wis.—1801 St. Paul Ave.  
New York City—40 W. 40th St.  
Omaha, Nebr.—413 S. 10th St.  
Philadelphia, Pa.—25th & Reed Sts.

Pittsburgh, Pa.—337 2nd Ave.  
San Francisco, Cal.—4th & Townsend Sts.  
Seattle, Wash.—Holgate & Utah Sts.  
St. Louis, Mo.—4201 Duncan Ave.  
St. Paul, Minn.—Minnehaha & Prior Ave.  
Washington, D. C.—4th & Channing Sts.

## New Ideal Hotcoil Water Heaters for Gas and Coal

With Porcelain Enamel Top and Base

Here is the lowest priced, completely equipped, automatic storage heater on the market. It gives abundant hot water, day and night, on the turn of a faucet.

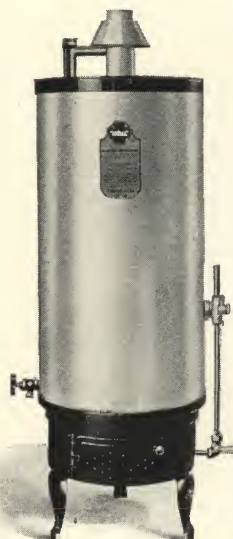
The new Ideal Gas Water Heater functions with the highest degree of operating efficiency attainable for practical service.

With green porcelain enamel top and base, in combination with the pearl-gray jacket, the beauty of this heater is virtually everlasting. It is a product any housewife would be happy to possess and show to her friends.

The development of this heater is a revelation of what sincere, relentless, scientific investigation can accomplish. It unites "flash" heating with the automatic storage factor, embodying the advantages of all other types of water heaters. Yet the unparalleled low prices of the Ideal Gas Water Heater bring it within the reach of any home owner. Here is another milestone in the rising standard of living comfort.

Approved by American Gas Association and Good Housekeeping Institute.

MADE IN THREE SIZES: 20 GAL., 30 GAL., 40 GAL.



For Gas



For Coal

## New Ideal Coal Burning Water Heater

With Porcelain Enamel Top and Base

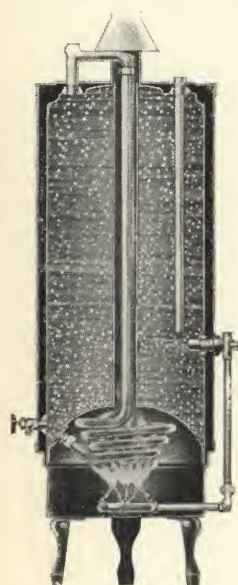
Our experience of the past year and a half has clearly demonstrated the persistent and widespread demand for a popular-priced, coal-burning, automatic storage unit—particularly in the larger sizes.

### Abundant Hot Water for a Few Cents a Day

The firepot is made of cast iron with a one-inch non-heat-conducting refractory lining. So effective is this lining that under ordinary operating conditions the temperature of the smooth, enameled and non-water-backed exterior of the firepot is no higher than the temperature of the water in the tank—indicating the high operating efficiency of the Heater. This lining not only contributes to the efficiency of the Heater, but also provides for a very quick pick-up capacity, for it retains the heat of the fire, and after a shaking-down and the addition of more fuel, the new charge of coal quickly ignites. The radiant heat of the glowing coals plays directly on the broad bottomed, water-backed surface of the tank, and the heated water rises, extracting increasing amounts of heat from the gases in the central flue. Of course, the frequency with which a coal-burning Heater of any type must be fired depends upon the amount of hot water that is drawn. The Ideal Water Heater has been designed with deep firepot especially to provide for long firing periods. Hard or soft coal may be used.

## SPECIFICATIONS

1. Bunsen type gas burner with self pilot.
2. Large bore heavy gauge, one-piece copper coil heating element, insuring immediate hot water recovery.
3. Conveniently located brass drain cock.
4. Substantial heavy gauge tank, galvanized inside and outside.
5. Non-destructible metal jacket with beautiful pearl gray baked enamel finish.
6. Special brass hot water flow-fitting.
7. Porcelain enamel Back Draft Diverter Hood.
8. Non-syphon acting cold water intake, with outflow over thermostat, insuring instantaneous automatic action.
9. Central water-surrounded flue containing copper coil heating element.
10. New Arco metallic bellows, quick-acting automatic regulator.
11. Main Gas Supply Control Valve.
12. Substantial base and legs with porcelain enamel finish.



Sectional View

## SPECIFICATIONS

1. The only self-contained coal-burning, automatic storage heater manufactured.
2. For a few cents a day, gives constant hot water supply at every faucet.
3. Fully equipped with automatic regulation.
4. Of everlasting beauty—firepot, base and top piece finished in green porcelain enamel; jacket in pearl gray japan.
5. Extremely low-priced—within the practical buying reach of every prospect.

MADE IN FOUR SIZES: 30 GAL., 40 GAL., 60 GAL., 80 GAL.



Sectional View

For Other Products: Boilers 374-377, Heaters 366



For further details and literature, write to:

**AMERICAN RADIATOR COMPANY**

40 W. 40th St.  
New York City



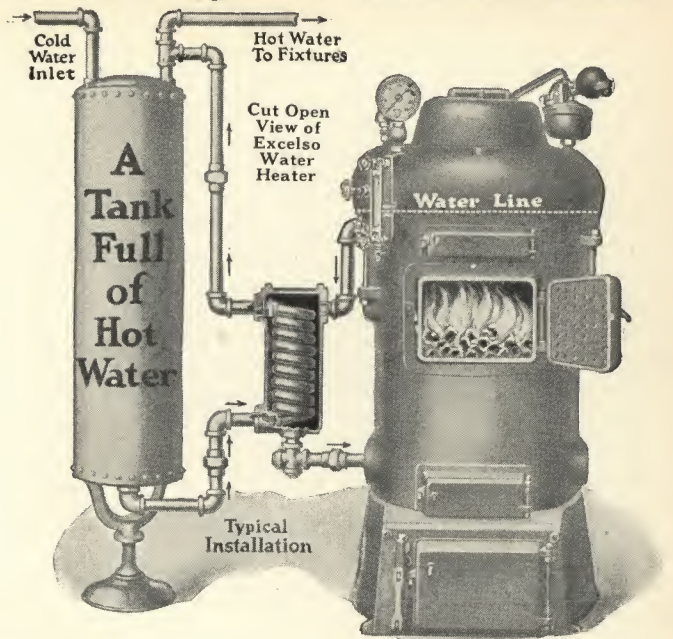
# Hot Water . . . Practically Without Cost

Excelso Water Heaters provide a constant and uniform supply of domestic hot water at lowest possible cost in homes, apartments, hotels, office and mercantile buildings. By using the fire that warms the home or building they save the care and cost of separate fuel and fire. They eliminate the inefficient and troublesome fire-pot coil. They connect with the regular piping and storage tank system. Any plumber or steamfitter can install easily and quickly. They are self-operating, requiring absolutely no attention.

## Several Types and Sizes

Excelso *Indirect* Water Heaters operate on the outside of steam or vapor boilers—round, sectional or tubular steel types. Three styles: Single Copper Coil, Double Copper Coil, Triple Copper Coil. Capacities: 30 to 800 gal. (or more when connected in batteries of two or more).

Excelso *Direct* Water Heaters are made in three styles and a number of sizes. They operate in connection with hot water boilers or hot air furnaces. Being compact and above the fire level they do away with the troublesome fire-pot coil. The several styles are: Excelso Fire-pot Generator, Excelso Phaeton Heater, Excelso Fin Pin Heater. Several sizes each. Capacities 30 to 250 gal.



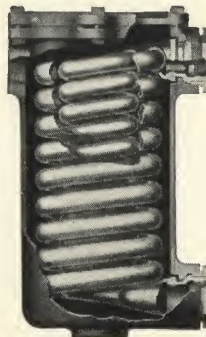
Sold and Installed by  
All Plumbers and  
Steamfitters

## EXCELSO WATER HEATERS

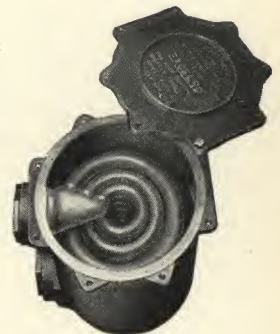
Nationally Distributed by  
Leading Wholesalers and  
Boiler and Radiator  
Manufacturers



Excelso Indirect Heaters connect outside, between the steam or vapor boiler and the hot water storage tank; below the water line so that the boiling water from the heating boiler flows down through the Excelso, indirectly heating the domestic supply which circulates up through the copper coil.



The copper coil heating elements are fitted into the cast iron shell by means of patented ground joint connections—all parts interchangeable. Not a drop of heated water comes in contact with the cast iron.



### Excelso Single Coil Indirect Heater

This is the popular style for homes and small buildings. Made in six sizes, from 30 to 120 gal. capacity.

#### DIMENSIONS

| Size                | Jr. | 11  | 12 | 13  | 14 | 15  |
|---------------------|-----|-----|----|-----|----|-----|
| Length, in.         | 8½  | 10½ | 14 | 11½ | 15 | 19½ |
| Diameter, in.       | 5   | 5   | 5  | 6½  | 6½ | 6½  |
| Shell Openings, in. | 1   | 1   | 1  | 1½  | 1½ | 1½  |
| Coil Openings, in.  | ¾   | ¾   | ¾  | 1   | 1  | 1   |
| Weight, Crated, lb. | 11  | 17  | 23 | 31  | 39 | 46  |

### Excelso Fire Pot Generator

Installed above the fire level in hot water boilers and hot air furnaces, the Excelso Fire Pot Generator does not interfere with combustion or fuel or firing of boiler. Gives maximum heating surface. Does away with the troublesome fire-pot pipe coil. Made in cast iron or brass in two sizes; No. 1, up to 40 gals.; No. 2, over 40 gal. capacity.



### Excelso Double Coil

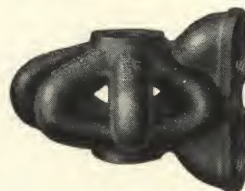
The heavy duty Double Coil Heater is for larger installations such as apartment houses, medium size hospitals, business blocks, etc. Capacities 160 to 400 gals.

#### DIMENSIONS

| Size                | 25  | 26 | 27 | 28  |
|---------------------|-----|----|----|-----|
| Length, in.         | 12½ | 15 | 19 | 23¼ |
| Diameter, in.       | 9   | 9  | 9  | 9   |
| Shell Openings, in. | 2   | 2  | 2  | 2   |
| Coil Openings, in.  | 1½  | 1½ | 1½ | 1½  |
| Weight, Crated, lb. | 58  | 68 | 82 | 95  |

### Excelso Phaeton Heater

Used to heat the domestic hot water supply, to heat auxiliary radiators or to do both. They are placed in the furnace or hot water boiler, above and out of the way of the fire. Side and top and bottom tappings come with each size. Cast iron or brass; capacities from 30 to 250 gals.



### Excelso Triple Coil

Designed for still larger installations such as laundries, hotels and apartments. Also used in heating radiation. Capacities from 600 to 800 gals.

#### DIMENSIONS

| Size                | 35  | 36  |
|---------------------|-----|-----|
| Length, in.         | 21  | 25  |
| Diameter, in.       | 13¾ | 13¾ |
| Shell Openings, in. | 3   | 3   |
| Coil Openings, in.  | 2½  | 2½  |
| Weight, Crated, lb. | 185 | 210 |

### Excelso Fin-Pin Heater

Made in 2 sizes, either brass or iron—especially for use in the fire pots of Hot Water Boilers, Warm Air Furnaces and Arcola Type Heaters.

No. 30—30 Gal. Cap.

No. 40—40 Gal. Cap.



For further details and literature, write to:

Excelso Products Corporation  
DIVISION OF AMERICAN RADIATOR COMPANY

Branches in all Principal Cities  
83 Clyde Ave. BUFFALO, N. Y.



# Economy and Peerless Gas Water Heaters

Manufactured by

**ECONOMY HEATER COMPANY**

105 West Monroe Street, Chicago

Chicago Plant, 2491 South Robey Street

Portsmouth Plant, Portsmouth, Ohio

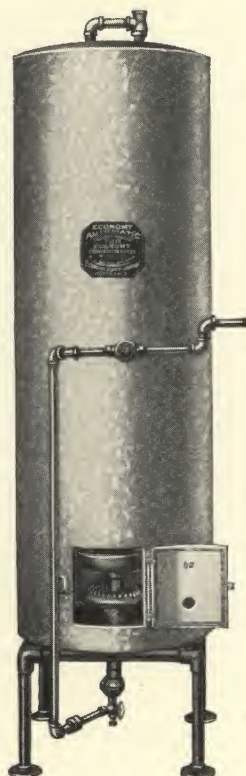
## Products

Storage Gas Heating Range Boilers with and without automatic thermostatic control. Also Galvanized Steel Range Boilers.

## Two Prominent Brands

We own the patents and all trade rights covering the "Economy Automatic Storage Gas Water Heater" and the "Celebrated Peerless Kitchen Boiler" (combined Gas Water Heater and Range Boiler), both of which have enjoyed national distribution for over 15 years.

### The Economy Automatic Storage Gas Water Heater



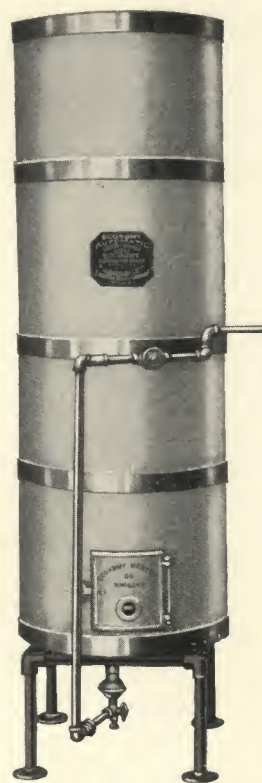
ECONOMY AUTOMATIC  
Without Insulation, as Regularly Furnished

This piece of equipment renders the best form of instant and continuous domestic hot water service with gas as the fuel. It requires no attention, being entirely self-operating. It is extremely efficient and, there-

fore, very economical on gas. It can be connected with coil in heating plant if desired so that during the winter months the use of gas for hot water can be avoided. It is the most practical and sensible selection for any large residence, two-flat or three-story apartment building, store, factory and indeed wherever a constant and ample supply of hot water is required. Made in sizes up to nominal 120 gallons storage capacity.

## Insulation

The Economy Automatic Storage Gas Water Heater does not require insulation. It is a complete, self-contained, built-in gas heating boiler in and of itself and, while we manufacture insulating coverings for all sizes, we do not claim that any fuel saving of consequence will be obtained through use of insulation except in sizes numbers 52 to 120. Usually Economy Automatics are installed without insulation.



ECONOMY AUTOMATIC  
With Specially Designed Insulation to Be Applied  
on Job After Installation



For further details and  
literature write to:

**ECONOMY HEATER CO.**

105 West Monroe Street  
Chicago



# Economy and Peerless Gas Water Heaters (Continued)



These prices are net contracting plumbers' costs f.o.b. Chicago or Portsmouth, Ohio:

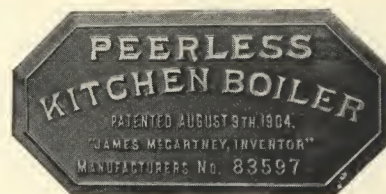
| Number | SIZE            |             | Shipping Weight Lbs. | Actual Holding Capacity Gallons | Price Each |
|--------|-----------------|-------------|----------------------|---------------------------------|------------|
|        | Diameter Inches | Height Feet |                      |                                 |            |
| 18     | 12              | 3           | 115                  | 13                              | \$ 46.00   |
| 24     | 12              | 4           | 135                  | 17                              | 47.00      |
| 30     | 12              | 5           | 155                  | 21                              | 48.00      |
| 32     | 14              | 4           | 165                  | 23                              | 51.00      |
| 40     | 14              | 5           | 175                  | 30                              | 54.50      |
| 42     | 16              | 4           | 180                  | 32                              | 57.00      |
| 52     | 16              | 5           | 195                  | 41                              | 67.20      |
| 55     | 18              | 4           | 205                  | 43                              | 69.60      |
| 66     | 18              | 5           | 235                  | 53                              | 81.60      |
| 69     | 20              | 4           | 245                  | 55                              | 84.00      |
| 82     | 20              | 5           | 255                  | 65                              | 96.00      |
| 100    | 22              | 5           | 300                  | 78                              | 117.60     |
| 120    | 24              | 5           | 365                  | 94                              | 129.60     |

Above prices are for "Economy Automatics" complete with positive thermovalve control but without stand or insulated covering. Stands extra on all sizes. Regular range boiler stands can be used. For sizes 16 inches in diameter and larger we recommend the use of pipe stands as shown in illustrations. We furnish pipe stands only when ordered at price of \$4.00 each. F.o.b. Chicago or Portsmouth, Ohio.

## Specially Designed Insulation for "Economy Automatics" Packed One Complete Set to Case

These prices are net contracting plumbers' costs f.o.b. Chicago or Portsmouth, Ohio:

|                                                                                                                                                                                                                                             | Size | Each    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|
| The Economy Automatic without insulation is the most efficient gas water heater on the market, but if covering is wanted our six-ply "CAROCEL" formed insulation is available and can be applied in a few moments' time after installation. |      |         |
| 18.....                                                                                                                                                                                                                                     |      | \$ 7.20 |
| 24.....                                                                                                                                                                                                                                     |      | 8.40    |
| 30.....                                                                                                                                                                                                                                     |      | 9.60    |
| 32.....                                                                                                                                                                                                                                     |      | 9.60    |
| 40.....                                                                                                                                                                                                                                     |      | 10.80   |
| 42.....                                                                                                                                                                                                                                     |      | 10.80   |
| 52.....                                                                                                                                                                                                                                     |      | 13.20   |
| 55.....                                                                                                                                                                                                                                     |      | 13.20   |
| 66.....                                                                                                                                                                                                                                     |      | 15.60   |
| 69.....                                                                                                                                                                                                                                     |      | 15.60   |
| 82.....                                                                                                                                                                                                                                     |      | 16.80   |
| 100.....                                                                                                                                                                                                                                    |      | 19.20   |
| 120.....                                                                                                                                                                                                                                    |      | 21.60   |



## The "Celebrated Peerless Kitchen Boiler" (Combined Gas Water Heater and Range Boiler)

The "Peerless" is the gas heating boiler which established this type of domestic hot water equipment. The "Peerless" was specified and thousands of them were installed in 1918 by the United States Housing Corporation. Builders who adopt the "Peerless" make it serve as an added feature—something which helps them make the sale or secure the tenant.

## Don't Take a Substitute—Insist Upon Having the Genuine "Peerless"

We make the "Peerless" in all sizes from No. 18 up to No. 52. And we urge every builder of homes in the United States to find out for himself from actual trial of one just how good the "Peerless" is and how advantageous it will be for him to adopt the "Peerless" and stop using plain range boilers with side gas heaters.



These prices are net contracting plumbers' costs f.o.b. Chicago or Portsmouth, Ohio. for the celebrated Peerless Kitchen Boiler:

| Number | SIZE            |             | Price Each |
|--------|-----------------|-------------|------------|
|        | Diameter Inches | Height Feet |            |
| 18     | 12              | 3           | \$17.00    |
| 24     | 12              | 4           | 18.00      |
| 30     | 12              | 5           | 19.00      |
| 32     | 14              | 4           | 19.00      |
| 40     | 14              | 5           | 30.00      |
| 42     | 16              | 4           | 33.00      |
| 52     | 16              | 5           | 43.00      |

\*\*\*\*\*

## STANDS EXTRA

Use Range Boiler Stands or we will furnish set of 3 legs as shown in illustration at price of \$1.00 per set.



For further details and literature write to:

**ECONOMY HEATER CO.**

105 West Monroe Street  
Chicago



# DAHLQUIST AQUATHERM

Manufactured by  
**DAHLQUIST MFG. COMPANY**

A, 2d and W. 3d Streets

South Boston, Mass.

## Products:

This company makes the Dahlquist Aquatherm (the invention of Theodore Dahlquist) and also the Dahlquist Copper Range Boiler with which the Aquatherm is used. In new buildings it is recommended that the Dahlquist Aquatherm and Dahlquist Copper Range Boiler be installed together, but in homes where there is already a range boiler the Aquatherm may be purchased separately and installed in the old boiler. We also furnish complete water heating systems—Heater, Aquatherm and Boiler—for heating water by coal fire, gas, electricity or kerosene. See typical installations on next page.

## What the Aquatherm Does

The Dahlquist Aquatherm converts any hot water storage system into an instantaneous water heater. In ordinary hot water boilers the cold water and hot water are mingled, the only separation being due to the tendency of the warmer water to rise to the top. The Dahlquist Aquatherm as shown in diagram provides both water heating and hot water storage.

## Construction of the Aquatherm

The Dahlquist Aquatherm is constructed on approved scientific principles and of non-rusting metals—only brass and copper being used in its manufacture. It is easily installed in any range boiler. The insulated tube prevents radiation. Hot water is taken direct from the heater into the service lines. When the service line is open hot water by-passes holes in the Aquatherm and goes direct into the system. When service line is closed hot water automatically stores in the boiler as shown by the downward arrows. See Figure (A).

## Dahlquist Copper Range Boiler

This is a copper range boiler which we build especially for use with the Dahlquist Aquatherm. You will find nothing better on the market, nor so reasonable in price, considering the high grade of material and workmanship. Every boiler is tested under hydrostatic pressure before shipment. A beautiful boiler and one that will last as long as the house in which it is installed. We urge building contractors to write for prices and description since a handsome boiler like this Dahlquist Copper Range Boiler gives distinction to the kitchen in which it is installed and makes the house easier to sell.

## Our Service Department Is at Your Service

Our experienced water heating engineers will gladly advise you as to the best method of installing the Dahlquist Aquatherm and Dahlquist Copper Range Boiler with any type of water heater. We are frequently able to make suggestions that result in considerable savings in pipe and labor.

## Cost Is Low

Every household can now afford instantaneous hot water. Old hot water boilers can be converted into instantaneous heaters merely by installing a Dahlquist Aquatherm, and the installation can be made by any plumber in an hour's time.

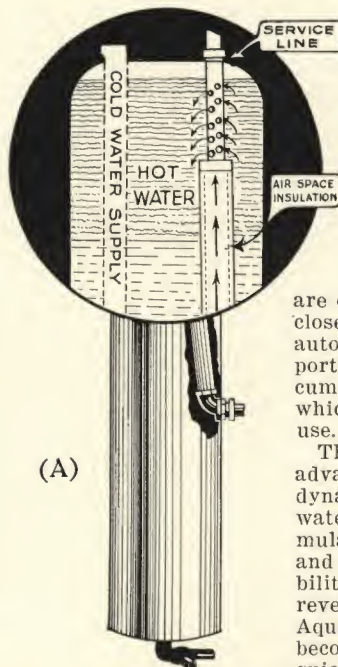
## Copper Range Boilers

Heavily reinforced with brass rings, top riveted; on the 250- and 300-pound pressure boilers, both ends are riveted. In all direct pressure boilers of above 80-gallon capacity a handhole is placed in the bottom.

Made in capacities from 5 to 500 gallons and in three pressures tested respectively to 200, 250, and 300 pounds. Stock range boilers are made in various pressures up to 250 pounds and to order up to 300 pounds. Working pressure complies with the Massachusetts plumbing regulations.

|                       |       |    |    |    |    |    |       |     |     |     |     |     |     |     |     |
|-----------------------|-------|----|----|----|----|----|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| Capacity,<br>Gal. .25 | 30    | 40 | 50 | 60 | 70 | 80 | 90    | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 |
| Diameter,<br>In. .11  | 1 1/2 | 12 | 14 | 16 | 17 | 18 | 20    | 20  | 20  | 22  | 25  | 30  | 32  | 35  | 35  |
| Length,<br>Ft. .4     | 5     | 5  | 5  | 5  | 5  | 5  | 5 1/2 | 6   | 6   | 6   | 6   | 6   | 6   | 7   | 8   |

## Operation of Dahlquist Aquatherm



When heat is applied to the coil in the heater or to the waterfront in the coil range the water therein, when the service line is open, passes directly from the coil or the waterfront through the Aquatherm tube in the boiler and then through the service lines to the hot water faucet. The Aquatherm insulates this hot water from the colder water in the boiler as long as the service lines are open. As soon as the faucet is closed, however, the hot water automatically passes through the ports in the Aquatherm and accumulates in the top of the boiler which acts as a reservoir for later use.

The Aquatherm thus takes advantage of natural thermodynamic laws and eliminates water-hammering, prevents accumulation of sediment and steam, and absolutely precludes the possibility of hot water circulation reversing. Through the use of the Aquatherm the boiler combination becomes a storage system and quick heater in one. It works equally effectively with gas, electricity, coal or kerosene; costs less to install initially, and definitely reduces fuel bills.



For further details and literature write to:

**DAHLQUIST SERVICE BUREAU**

130 West 3rd St.  
SOUTH BOSTON, MASS.

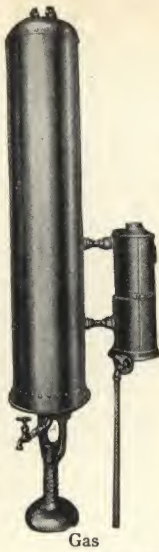


# Quicker Hot Water From Any Range Boiler



**Aquatherm Automatic Storage Combination**

The Dahlquist Automatic Storage Combination consists of the Dahlquist copper boiler with Aquatherm, a powerful gas burner of the latest, most approved type, controlled by a thermostat which maintains the proper degree of temperature in the storage boiler at all times. This simple arrangement provides the household with an inexpensive apparatus giving, without attention, a copious supply of steaming hot water at all times.



**Aquatherm Gas Combination**

The Dahlquist Aquatherm Gas Heater Combination is equipped with a powerful gas burner giving an immediate and generous supply of piping hot water as soon as the faucet is opened. It is furnished to operate automatically by means of a thermostat, a small pilot flame which lights the gas as the hot water is turned on and shuts off the gas as soon as a supply of hot water is accumulated in the boiler; or, without the automatic attachment, the flame being lighted by the user when hot water is desired. Both types are perfect in design and construction, providing low initial cost and negligible upkeep.



**Aquatherm Electric Combination**

An ideal combination for use in homes where gas is not available. It is furnished both automatic with thermostat control, causing the heater to operate as soon as the temperature of the water in the boiler falls below the required point, or supplied manually operated if desired. The electric heating unit is mounted directly on the boiler, gives ample heating surface, and cannot burn out or short-circuit. It is extremely simple and economical to install and maintain.



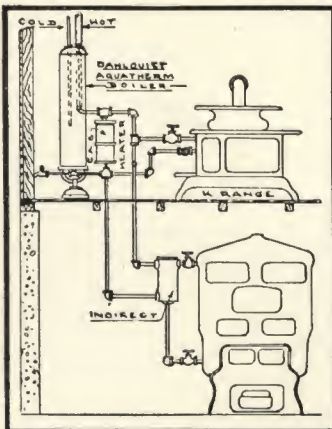
**Aquatherm Kerosene Combination**

The Dahlquist Aquatherm Kerosene Heater Combination is an entirely practical and efficient outfit, designed for use where gas or electricity is not available. The water heater supplied burns ordinary commercial kerosene which is stored in a reservoir containing twelve hours' supply at full heat. The powerful burner insures a supply of hot water in a remarkably short time. A feature of this combination is that it can be changed to a gas or coal combination at any future time at very slight expense.

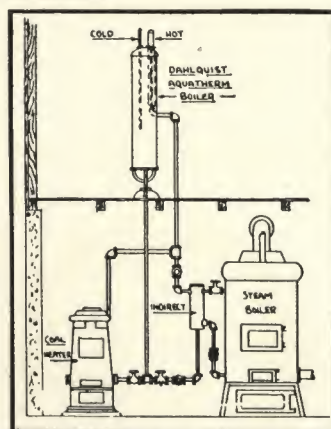
## AQUATHERM COPPER RANGE BOILER OUTFITS

| Capacity,<br>gallons | Test<br>pressure, lb. | Working<br>pressure, lb. | Boiler with<br>Aquatherm | Combination Boiler with Aquatherm and— |               |                 |               |                            |
|----------------------|-----------------------|--------------------------|--------------------------|----------------------------------------|---------------|-----------------|---------------|----------------------------|
|                      |                       |                          |                          | Gas heater                             |               | Electric heater |               | Kerosene or<br>coal heater |
|                      |                       |                          |                          | Automatic                              | Non-automatic | Automatic       | Non-automatic |                            |
| 25                   | 200                   | 85                       | \$ 47.00                 | \$113.00                               | \$ 63.00      | \$133.00        | \$103.00      | \$ 76.00                   |
| 25                   | 250                   | 106                      | 54.00                    | 120.00                                 | 69.00         | 139.00          | 109.00        | 83.00                      |
| 25                   | 300                   | 127                      | 67.00                    | 133.00                                 | 83.00         | 153.00          | 123.00        | 96.00                      |
| 30                   | 200                   | 85                       | 55.00                    | 133.00                                 | 71.00         | 141.00          | 111.00        | 84.00                      |
| 30                   | 250                   | 106                      | 63.00                    | 141.00                                 | 79.00         | 149.00          | 119.00        | 92.00                      |
| 30                   | 300                   | 127                      | 79.00                    | 157.00                                 | 95.00         | 165.00          | 135.00        | 108.00                     |
| 40                   | 200                   | 85                       | 65.00                    | 173.00                                 | 95.00         | 165.00          | 135.00        | 108.00                     |
| 40                   | 250                   | 106                      | 73.00                    | 184.00                                 | 103.00        | 175.00          | 143.00        | 116.00                     |
| 40                   | 300                   | 127                      | 89.00                    | 205.00                                 | 120.00        | 190.00          | 160.00        | 133.00                     |
| 50                   | 200                   | 85                       | 77.00                    | 220.00                                 | 117.00        | 187.00          | 157.00        | 131.00                     |
| 50                   | 250                   | 106                      | 87.00                    | 233.00                                 | 128.00        | 198.00          | 168.00        | 141.00                     |
| 50                   | 300                   | 127                      | 117.00                   | 260.00                                 | 149.00        | 219.00          | 189.00        | 163.00                     |

## Typical Installations



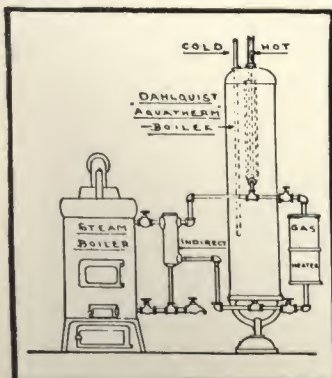
Dahlquist Aquatherm Copper Range Boiler installed in connection with gas tank water heater, water back in coal or wood kitchen range in kitchen, and indirect water heater in cellar.



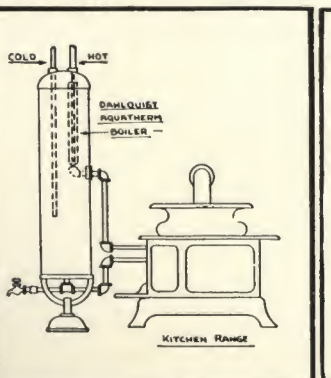
Dahlquist Aquatherm Copper Range Boiler installed in kitchen in connection with indirect water heater and coal fired water heater in cellar.

## 25 Year Guarantee

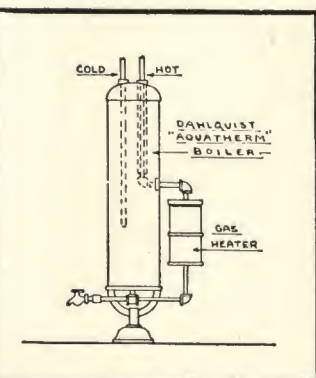
With every Dahlquist Copper Range Boiler goes a certificate, guaranteeing the boiler for 25 years against defect of any kind, when properly installed. Only the highest grade of Lake Copper is used. Dahlquist Boilers pass all tests at the factory, and working pressures need not concern the user, regardless of recent increases in water pressure in many cities. Yearly, hundreds of letters come to us, unsolicited, from plumbers, home owners and architects, expressing praise at the service of Dahlquist Lifetime Copper Boilers. We are glad to provide these prized testimonials in copy form to anyone who writes for them. The Dahlquist Aquatherm Copper Range Boiler and the Dahlquist Aquatherm itself are fully protected by patents in the United States and Canada.



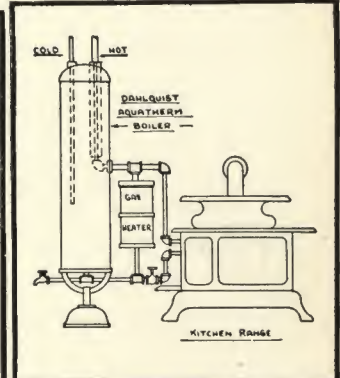
Dahlquist Aquatherm Copper Range Boiler installed in cellar in connection with gas water heater and indirect water heater in cellar.



Dahlquist Aquatherm Copper Range Boiler installed in connection with water back in coal or wood kitchen range.



Dahlquist Aquatherm Copper Range Boiler installed in connection with gas tank water heater in kitchen. Note the simplicity of installation.



Dahlquist Aquatherm Copper Range Boiler installed in connection with gas tank water heater and water back in coal or wood kitchen range.



For further details and literature, write to:

**DAHLQUIST SERVICE BUREAU**

130 West 3rd St.  
SOUTH BOSTON, MASS.



# Paracoil Domestic Water Heaters

For Use With Steam, Vapor, or Hot Water Heating Systems

Executive Office and Factory  
ELIZABETH, N. J.

Manufactured by  
**DAVIS ENGINEERING  
CORPORATION**

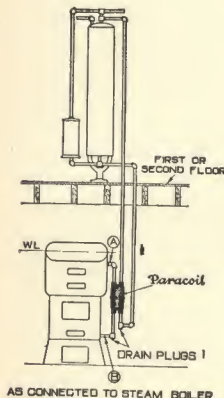
Sales Office: 90 West Street  
NEW YORK, N. Y.

## Hot Water Without Gas

The outstanding advantage of the Paracoil Domestic Water Heater is its economy. If your house is heated with steam, vapor or hot water you can attach a Paracoil to your heating boiler and get all the hot water you want for kitchen, bath and laundry *without consuming gas* to heat water. Imagine being able to turn on the hot water faucet, even on a cold winter's night, and get steaming hot water—all you want of it—whether the fire is banked or not. And this without adding a cent to your gas bill!

## How it Works

The Paracoil Heater consists of a cast iron shell with a copper coil inside. It is attached to the outside of the heating boiler and connected to the hot water tank, which may be installed in the kitchen or in the basement. Hot water from the boiler passing into the cast iron shell automatically heats the water for domestic use as it passes through the copper coil. The action is positive and efficient, whether connected to steam or vapor house-heating system. The Paracoil Heater has a single heavy gauge copper coil of ample length. No brazed joints. The two ends of the coil are expanded and rolled into sleeves, locked in by an eccentric flange and jam nut, which also protects the joint against strain of installing. The cast-iron shell is separable in the middle for accessibility, bolted together and permanently tight.



## Easy to Install

The Paracoil Water Heater is easy to install and when once in service it requires no attention whatever. The latest types of heating boilers have a tapped opening all ready for the Paracoil connection. Other boilers can be easily drilled and tapped by any plumber at a small cost.

The construction is exceptionally strong and rugged. The coils are of heavy gauge copper and the joints are absolutely leak-proof. There is positively no after expense with the Paracoil—no rusting, no leaking, no danger of bursting. The saving on your gas bills alone will quickly pay for installing a Paracoil.

Paracoil Water Heaters are fully guaranteed. They outlast even the house piping system.

## Better Than a Fire Pot Heater

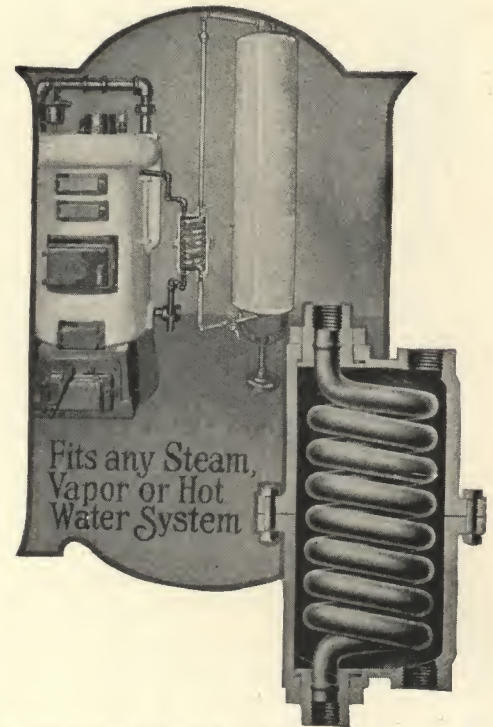
Heating engineers advise against installing a water coil in the fire-pot of a steam or hot water boiler. It deadens the fire and interferes with coaling and cleaning. Moreover, when the fire is very hot the water is raised to such a high temperature that hammering in the range boiler and piping results and there is always danger of the water coil bursting. In the Paracoil, water is never raised to a temperature higher than that of the steam or hot water in the heating plant, which is hot enough for all domestic purposes.

## Made in Seven Sizes

For small homes we recommend the Paracoil No. 0-30 and No. 0-40, which should be used with 30 and 40 gallon tanks. We make five other sizes for capacities from 30 to 300 gallons, suitable for large residences, duplex and apartment houses. The Paracoil costs no more than a small gas water heater.



Nos. 0-30 and 0-40

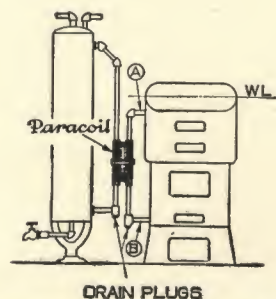


Nos. 1 to 5 are fitted with forged brass coil ends

## Write for Full Particulars

This sturdy and inexpensive little water heater is solving the hot water problem in thousands of homes and you should get full information concerning it before deciding on the type of water heater to use. Write for our illustrated catalog and price list.

Prices for complete installation of Paracoils may be obtained from your local plumber or heating contractor.



AS CONNECTED TO STEAM BOILER



For further details and  
literature write to:

**DAVIS ENGINEERING CORPORATION**

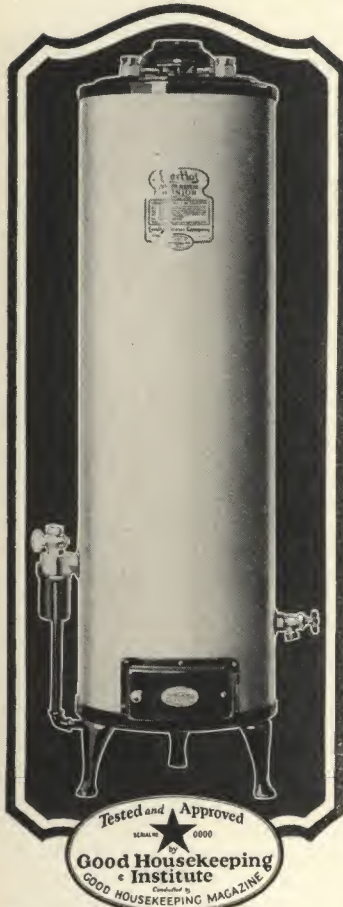
90 West Street  
New York, N. Y.

HOME BUILDERS CATALOG



# EverHot Automatic Water Heater

Manufactured by  
**EVERHOT HEATER COMPANY**  
5239 Wesson Ave., Detroit, Michigan



- No. 30—An Automatic Heater for connection to range boiler ..... \$ 30.00  
No. 66—For the small home..... 66.00  
No. 88—For the average home.... 88.00  
No. 122—For the 2 bath room home ..... 122.00  
Baby Grand—Same size as No. 66 but of heavier construction ..... 80.00  
Junior—Same size as No. 88 but of heavier construction... 110.00  
Senior—Same size as No. 122 but of heavier construction... 145.00  
Commander—For the large home... 195.00

Prices Do Not Include Installation

## What It Is

The EverHot is a scientifically built, simple, compact unit of graceful design and beautiful finish. Being highly efficient, the gas bills are an agreeable surprise. Thousands of them all over the country have a record of years of uninterrupted service without the outlay of a nickel for repairs. Built and backed by one of the largest manufacturers in the water heater industry.

## What It Does

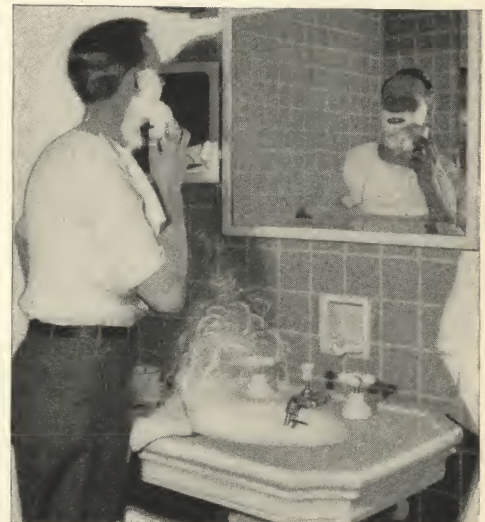
Imagine the kind of hot water service you would expect to find in a high class hotel, and for which you willingly pay a big premium.

That is just the kind of hot water service you can have in your home with the EverHot—and at a cost possibly less than the old way.

It is entirely automatic, needs no attention. It responds instantly to the turn of any hot water faucet, furnishing clean, hot water at all times and for any purpose.

Send for descriptive booklet, or ask your plumber.

Branches in 61 principal cities



For further details and literature write to:

**EVERHOT HEATER COMPANY**

5239 Wesson Avenue  
Detroit, Mich.



# HOFFMAN GAS WATER HEATERS

STORAGE TYPE

Made by

INSTANTANEOUS TYPE

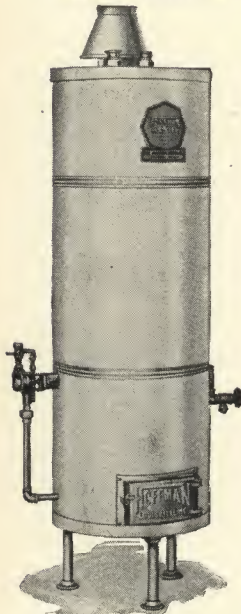
THE HOFFMAN HEATER COMPANY

Louisville, Kentucky

**HOFFMAN**  
Automatic  
Gas Water Heaters

**"Master" Automatic Domestic Storage System**  
**The Most Economical Automatic Water Heater Yet Devised**

"Master" 21 and 32



Patents Applied For

The Hoffman "Master" is a single unit, non-liming, non-condensing system, thermostatically controlled. It keeps hot water *always* on tap, and is astonishingly economical to operate because it utilizes more heat per foot of gas than does any other heater of its type.

This superiority is achieved by extending the tank walls downward to the base to form a heat choke chamber. Near the top of this chamber are five rows of perforations through which the hot gases must escape.

As the heat passes through these hundreds of perforations an unusually high percentage is absorbed by the tank walls and transmitted directly to the cold water. Thus stack losses are reduced to a minimum.

The "Master" is made in two sizes. Model 21 (maximum hourly capacity 60 gallons) is for homes of average size. Model 32 (maximum hourly capacity 80 gallons) is for large homes with 2 or 3 bathrooms and extra outlets.



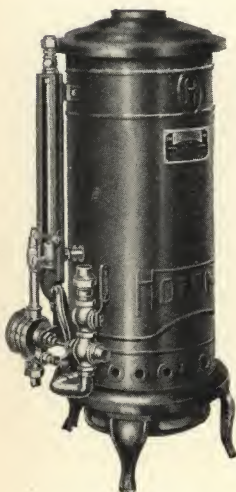
Note how the heat is forced through hundreds of perforations, causing the tank walls to absorb the greater part of it. Another advantage of this enclosed combustion chamber is that a small pilot light is sufficient to keep the tank water hot and ready for instant use.

**HOFFMAN**  
Automatic  
Gas Water Heaters  
(No Tank Required)

## Instantaneous Automatic Gas Water Heaters

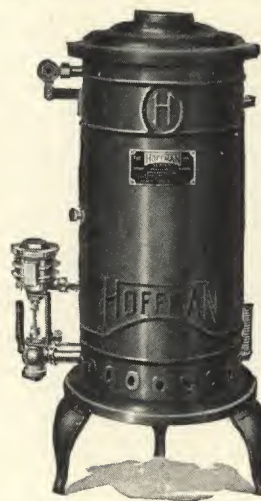
### Model 3 for the Average Home

Hoffman Instantaneous Thermostatic Gas Water Heaters differ from the "Master" system in that they have no storage tank but heat water direct from the mains as required. They provide instant hot water at the turn of a faucet, and continue to do so as long as the faucet is open. While in operation a thermostat keeps turning the gas off and on, assuring even water temperature and reducing cost of operation. Model 3, with a capacity of 3 gallons per minute, is recommended for homes of average size.



### Models 45 and 35 for Small Homes

The Hoffman 45 gives the small home instantaneous hot water service at low first cost and is very inexpensive to operate. It has a capacity of 2½ gallons per minute. Like the larger Hoffman models it is of the highest grade construction throughout, and like them can be depended upon to give many years of satisfaction. No. 35 is intended for use in cottages or bungalows with minimum hot water outlets and has a capacity of 2 gallons plus per minute.



For further details and literature, write to:

THE HOFFMAN HEATER CO., Louisville, Ky.



# Richardson Hot Water Laundry and Tank Heaters

Since  
1837

Manufactured by  
**RICHARDSON & BOYNTON CO.**  
Executive Offices: 260 Fifth Ave., New York City  
For Branch Offices See Page 401

Factory  
Dover, N. J.

## Other Products:

Warm Air and Pipeless Heaters, see pages 351-353.  
Round and Sectional Boilers, see pages 380-383.  
Coal and Combination Coal & Gas Ranges, see page 412.

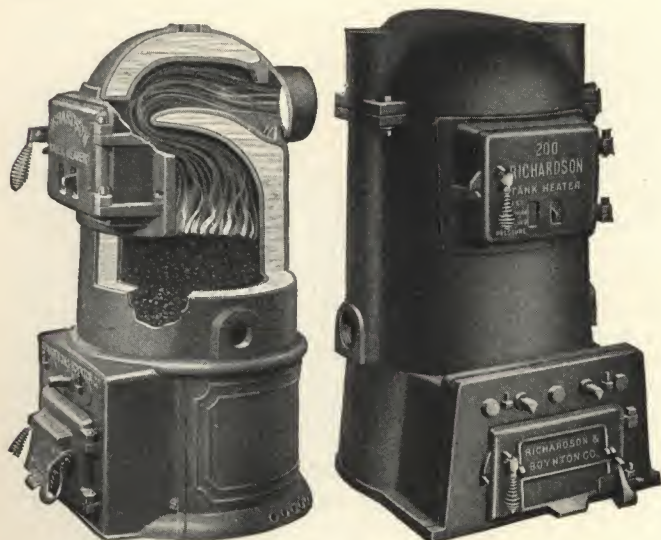
## Richardson Galvoxide Process Guarantees Clean Hot Water:

In many sections of the country the chemical composition of the water makes it impossible to obtain clean hot water, free from rust or discoloration, except by using brass sections in tank and laundry heaters.

Richardson & Boynton Company five years ago perfected a new type of heater with a galvoxide water section, treated by a special process so that it is not affected by the chemical properties in the water in any way. Clean hot water is available at all times.

Thousands of successful installations during the past five years have so established the Richardson Galvoxide Heater as a solution for the clean water problem that it is guaranteed to keep the water free from rust or discoloration.

Builders, architects and plumbers everywhere have found the guaranteed Galvoxide Water Section so thoroughly satisfactory in every way that they unreservedly recommend it to their clients.



Nos. 110T-112T-114T

Nos. 170-200-300

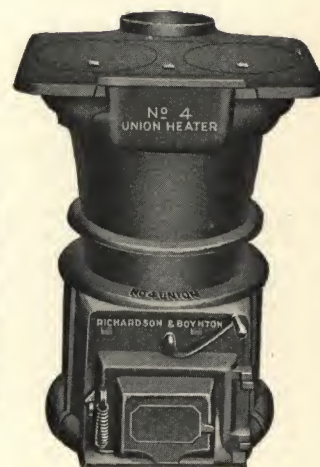
Domestic Hot Water Supply and Tank Heaters, Fitted with Triangular Grates. Can be furnished with grates for pea coal. Furnished with cast iron or galvoxide water section.

| Size | Capacity in Gallons of Water | Capacity in Sq. Ft. of Radiation | Dia. of Grates, Inches | Tap-pings, Flow and Return, Inches | Smoke Pipe | Height, Inches |
|------|------------------------------|----------------------------------|------------------------|------------------------------------|------------|----------------|
| 110T | 150                          | 115                              | 10                     | 1 1/4                              | 6          | 34             |
| 112T | 250                          | 200                              | 12                     | 2                                  | 6          | 36 3/8         |
| 114T | 350                          | 280                              | 14                     | 2 1/2                              | 6          | 37 1/8         |
| 170  | 475                          | 380                              | 17                     | 2-2 1/2                            | 7          | 42             |
| 200  | 600                          | 480                              | 20                     | 2-3                                | 8          | 42 7/8         |
| 230  | 800                          | 600                              | 23                     | 2-3                                | 9          | 46             |

## Hot Water Laundry Heaters No. 4 Union Heater:

Height, 27 1/2 inches.  
Top, 21x14 1/4 inches.  
Capacity, 50 gallons.  
Smoke-pipe, 6 inches.

1-inch flow and return tap-pings. Fitted with high ash pit and "Perfect" revolving grate bars. Can be furnished with Cast Iron or Galvoxide Water Section. The No. 4 Heater has a course of fire brick under water section which prevents ashes and dead coal from coming in contact with heating surface, insuring maximum efficiency.



## No. 123-T Heater:

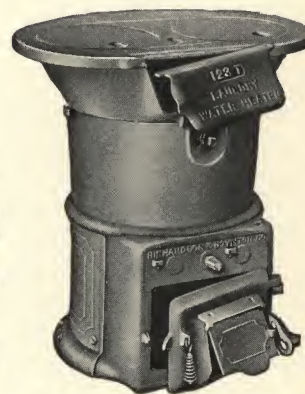
Height, 23 inches.  
Top, 24x16 inches.  
Capacity, 80 gallons.  
Grate, 10 1/2 inches.  
Smoke-pipe, 4 1/2 inches.

1 inch flow and return tap-pings.

Fitted with high ash pit and "Perfect" revolving grate bars.

Can be furnished with Cast Iron or Galvoxide Water Section.

A larger size—No. 124-T has a capacity of 150 gallons and is 26 inches high.



## No. 411 Heater:

This is primarily a soft coal heater, with a capacity of 100 gallons.

Radiation, 50 feet.  
Height over all, 27 inches.  
Grate, 10 inches.  
Depth of fire, 10 inches.  
Smoke Pipe, 5 inches.  
Tap-pings, 1 1/2 inches.  
Floor space, 18 in. x 18 in.  
Fire door, 6 in. x 4 1/2 in.



For further details and literature, write to:

**RICHARDSON & BOYNTON CO., New York City-Utica, N. Y.**



# 'Pittsburg' GAS WATER HEATERS

Made by

**PITTSBURG WATER HEATER CO.**

Factory and General Offices

**Pittsburgh, Pa.**

District Sales Offices

Baltimore, Md.  
Boston, Mass.  
Brooklyn, N. Y.  
Buffalo, N. Y.  
Chicago, Ill.  
Cincinnati, Ohio

Cleveland, Ohio  
Columbus, Ohio  
Dallas, Texas  
Dayton, Ohio  
Detroit, Mich.  
El Paso, Texas

Fort Worth, Texas  
Houston, Texas  
Indianapolis, Ind.  
Kansas City, Mo.  
Los Angeles, Calif.  
Louisville, Ky.

Milwaukee, Wis.  
New Orleans, La.  
Newark, N. J.  
Oakland, Calif.  
Philadelphia, Pa.  
Pittsburgh, Pa.

St. Louis, Mo.  
San Antonio, Texas  
San Diego, Calif.  
San Francisco, Calif.  
Toledo, Ohio  
Washington, D. C.

Consult Telephone Directory

*Automatic*

*Instantaneous*

## 22 SIZES OF WATER HEATERS for the Bungalow or Skyscraper!

Steaming hot water and plenty of it for all the family and for all purposes is an absolute necessity for comfort, convenience and happiness. No home is truly modern, no building is really complete unless adequate provision has been made for automatic hot water service.

Twenty-two sizes of "Pittsburg" Water Heaters are available—a size and type for every building and for every hot water demand—a more complete line of water heaters is not only unnecessary but unavailable as well. Therefore, choose your water heater from the "Pittsburg" line.

### for the *Home Owner*

The luxury of instantaneous hot water service is now a thing of the past. Today adequate hot water is an absolute necessity—and a demonstrated economy.

With a "Pittsburg" Water Heater there is no waste of gas. You use it only as you need it.

With a "Pittsburg" Water Heater there is plenty of steaming hot water for all the family, for the morning shave, for the shower, for the bath, for dishes, for the laundry, for general cleaning and for the sickroom.

With a "Pittsburg" Water Heater no one has to wait for hot water. One tubful after another—any time day or night.

With a "Pittsburg" Water Heater you don't keep the gas going all the time. As you turn the faucet, the gas turns on. Close the faucet and the gas is off. And while drawing hot water, the "Pittsburg" automatically keeps the temperature of the water at the same degree—shuts itself off when that degree of heat is reached.

With a "Pittsburg" Water Heater your guests will not be disappointed—they will admire your judgment in specifying the "Pittsburg."

With a "Pittsburg" Water Heater you add enormously to the resale value of your home.

With a "Pittsburg" Water Heater there is nothing to watch, nothing to regulate, nothing to get out of order. It will give you that added touch of convenience that makes a home complete.

### for the *Builder*

A home is not merely a place in which to live—it's a thing to enjoy and adequate hot water service is as necessary to the occupants' welfare as provision for light.

With a "Pittsburg" Water Heater you are providing the utmost in automatic hot water service at the lowest possible cost.

With a "Pittsburg" Water Heater you at once add enormously to the selling value of the home you build.

With a "Pittsburg" Water Heater there can be no question as to the adequacy of the hot water supply.

With a "Pittsburg" Water Heater you are tying in with a name that has stood for quality water heaters for nearly a third of a century.

With a "Pittsburg" Water Heater you give tangible evidence that you are not merely building a house, but an enjoyable home.

With a "Pittsburg" Water Heater you get a heater that has embodied in it the finest mechanical features and the best in both materials and construction.

With a "Pittsburg" Water Heater you have a tremendous advantage over the old tank and heater. (See features under "Home Owner.")

With a "Pittsburg" Water Heater you have a means of adding to your reputation as a builder of good homes, modern homes, livable homes.

Write at once for complete information and description of "Pittsburg" Water Heaters, naming the number of homes you plan to erect, their sizes and we will gladly send you full details including prices.

#### Seals of Approval



**World's Largest Manufacturers of Copper Coil Water Heaters**



For further details and literature, write to:

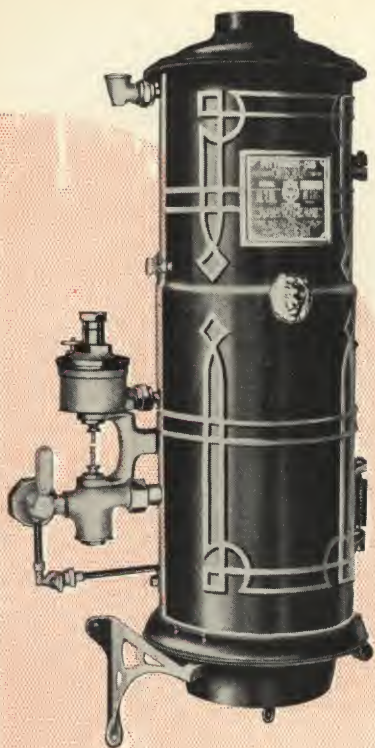
**PITTSBURG WATER HEATER CO., Pittsburgh, Pa.**

HOME BUILDERS CATALOG

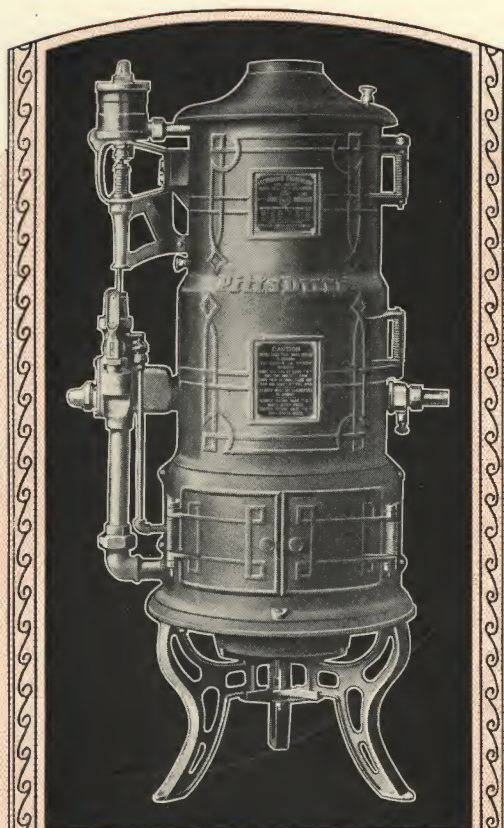


# 'Pittsburg' GAS WATER HEATERS

*All the HOT WATER  
You Need, Instantly  
and Automatically!*



The "Cub". Capacity, 2 gallons a minute.



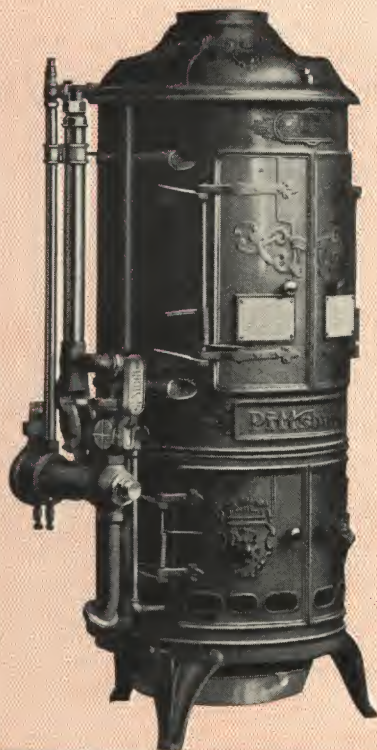
The "Pittsburg-Bungalow". Two sizes— $2\frac{1}{2}$  and 3 gallons a minute.

The five heaters illustrated on this page are a few of the more popular sizes for the home. Other "Pittsburg" Water Heaters are available in sizes to meet any hot water demand—from the smallest automatic heater to the largest Multi-Coil Storage System. Write for catalog describing type and size of heater in which you are most interested.

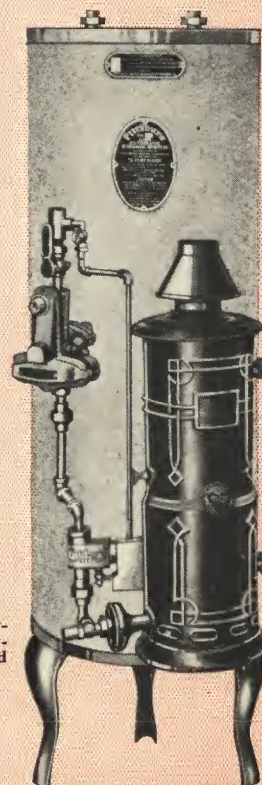
**Pittsburg Water Heater Co.**  
Pittsburgh, Pa.



The "Walker-Pittsburg". Tank Capacity, 24 gallons.



The "Pittsburg". Three sizes—4, 6 and 8 gallons a minute.



The "Pittsburg Storage". Tank capacities 25, 35, 45 and 65 gallons.

**World's Largest Manufacturers of Copper Coil Water Heaters**



For further details and literature, write to:

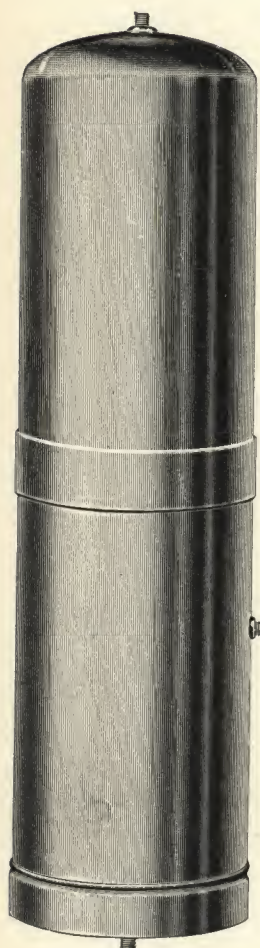
**PITTSBURG WATER HEATER CO., Pittsburgh, Pa.**



# "Brown & Brothers" SEAMLESS DRAWN COPPER Range Boilers

Made by  
**THE RANDOLPH-CLOWES COMPANY**  
(formerly "Brown & Brothers")

Waterbury, Conn.  
New York Office: 253 Broadway



One of the distinguishing marks of the modern home is a Copper Range Boiler in the kitchen. Iron rusts, and sooner or later water drawn from an iron boiler will show the red stain of corrosion. Then pitting begins and the boiler has to be scrapped and replaced with a new one.

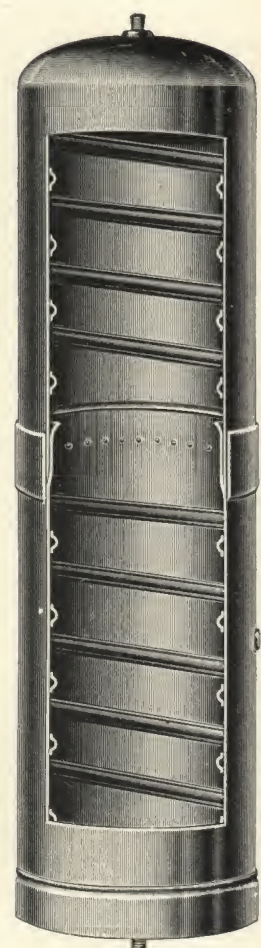
A copper boiler tinned on the inside costs more, in the first instance, than a cheap, galvanized iron boiler but it is less expensive in the long run and through all the years that it serves you the water drawn from a copper boiler will be uncontaminated by rust. The ideal job is a "Brown & Brothers" Seamless Copper Range Boiler connected up with Brass Pipe. We can furnish the boiler and the pipe.

## The Only Boiler with No Longitudinal Seam

The weakest spot in any boiler is the seam. All range boilers but ours have a long seam running the full length of the boiler. Now note the construction of the "Brown & Brothers" boiler and see the precautions taken to make it strongest where other boilers are weakest. There is no longitudinal seam. The upper half and the lower half of the boiler are absolutely seamless.

## Method of Construction

We take two seamless hard-drawn copper shells and telescope them together under hydraulic pressure. Then we rivet the two together at the lap. Over the rivets we place a seamless copper band and shrink it on. The result is that "Brown & Brothers" Boilers are strongest at the seam, there being three thicknesses of copper and a row of rivets at the only joint in the boiler. This is one of the reasons why for 50 years these boilers have been considered the best range boilers on the market.



## Spiral Reinforcement

Cheap boilers sometime collapse under atmospheric pressure. This happens when a vacuum is created inside the boiler. There being then no internal pressure to counteract the air pressure on the outside of the boiler (a constant pressure of approximately 15 lbs. to the square inch) the boiler collapses. To prevent this happening to one of our boilers the copper shell, throughout its entire length is reinforced by a strong spiral rib—see illustration at right of page.

## Seamless Drawn Brass and Copper Pipe

We manufacture in all sizes from  $\frac{1}{8}$ " to 12" Iron Pipe Size inclusive. We recommend and urge its use in connecting up "Brown & Brothers" Boilers and for all plumbing work, including the underground line from the street main to the house. Seamless Drawn Brass and Copper Pipe does not rust or corrode. Once installed it is practically everlasting. In the long run is more economical than iron. Its use is the way to insure a clean water supply.

Specify (R-C) Seamless Brass or Copper Pipe

## All Boilers Tested Before Shipment

Every "Brown & Brothers" Seamless Copper Range Boiler is carefully tested under water pressure before shipment. A pressure of 200 lbs. to the square inch is used for boilers designed for regular pressure and 300 lbs. for boilers designed for extra heavy pressure. Where the working pressure exceeds 85 lbs., or large quantities of hot water are in constant demand we recommend the use of Extra Heavy Pressure Boilers.

"BROWN & BROTHERS"  
Seamless Drawn Copper Range Boilers  
Vertical or Horizontal Patterns

| Capacity<br>Gals. | Dimensions<br>Inches |
|-------------------|----------------------|
| 30                | 12x 60               |
| 35                | 14x 53               |
| 40                | 14x 60               |
| 50                | 16x 60               |
| 60                | 16x 70               |
| 60                | 20x 44               |
| 80                | 20x 59               |
| 100               | 20x 76               |
| 100               | 24x 60               |
| 120               | 24x 65½              |
| 125               | 24x 69               |
| 150               | 24x 78½              |
| 180               | 24x 92½              |
| 200               | 24x103               |
| 250               | 24x129               |
| 300               | 24x155               |



For further details and literature, write to:

**THE RANDOLPH-CLOWES COMPANY**

Waterbury,  
Conn.



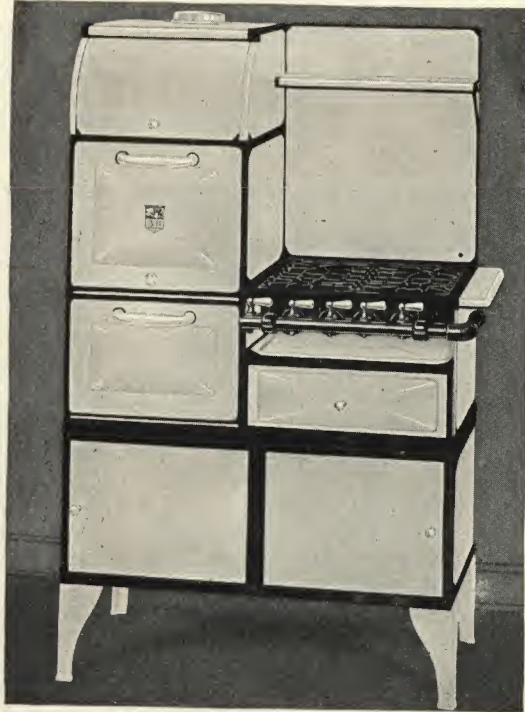
# A-B GAS RANGES

Manufactured by  
**A-B STOVE COMPANY**  
 Battle Creek, Michigan  
**A-B Gas Ranges**

Specialized facilities and extensive acquaintance with the building trade enables us to develop special types of stoves on short notice at very attractive prices. We make all sizes of domestic gas ranges from 4 to 8 burners. All gas ranges manufactured under our trade-mark—more than 100,000 per year—are equipped with guaranteed

rustproof oven linings. All standard specifications call for ovens 20 in. deep—which also affords a deeper cooking top and permits practical usage of the narrow width oven.

All ranges conform to specifications of the American Gas Association.

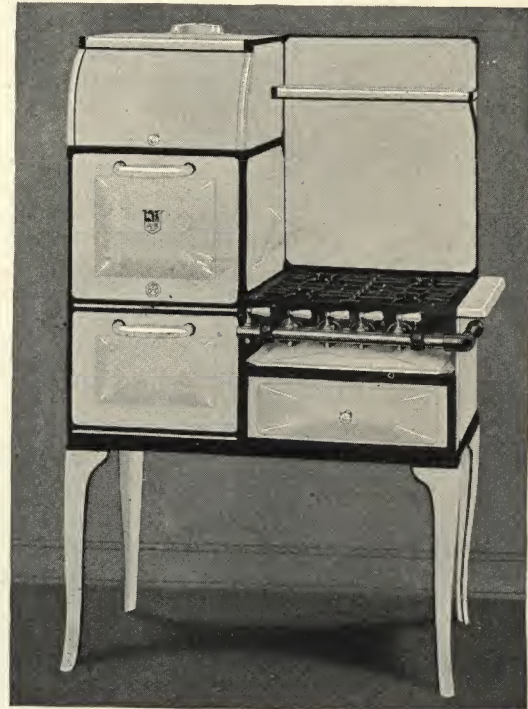


**No. 806-9LC Gas Range**

Width over all, 36 in.  
 Depth over all, 24½ in.  
 Extreme height, 55 in. when  
 supplied with 8-in. legs

Cooking top, 20x18 in.  
 Baking ovens, 19x13x12 in.  
 End shelf, 2½ in. wide

A-B  
 Ranges  
 May Also  
 Be Secured  
 in Colors



**No. 806-9 Gas Range**

Width, over all, 36 in.  
 Depth over all, 24½ in.  
 Extreme height, 55 in.

Cooking top, 20x18 in.  
 Baking ovens, 19x13x12 in.  
 End shelf, 2½ in. wide



**No. 806-LC Gas Range**

Width, over all, 36 in.  
 Depth over all, 24½ in.  
 Extreme height, 48½ in.

Cooking top, 20x18 in.  
 Baking ovens, 19x13x12 in.  
 End shelf, 2½ in. wide

We Also  
 Make  
 High Grade  
 Domestic  
 Ranges  
 With Six  
 Burners  
 and Two  
 Ovens



**No. 806 Gas Range**

Width, over all, 36 in.  
 Depth over all, 24½ in.  
 Extreme height, 48½ in.

Cooking top, 20x18 in.  
 Baking ovens, 19x13x12 in.  
 End shelf, 2½ in. wide



For further details and  
 literature, write to:

**A-B STOVE COMPANY**

Battle Creek  
 Michigan



# "Perfect" Coal and Combination Coal and Gas Ranges

Since  
1837

Manufactured by  
**RICHARDSON & BOYNTON CO.**

260 Fifth Ave., New York City—Utica, N. Y.

For Other Products: Boilers, 380-383; Furnaces, 351-353; Tank Heaters, 407.

## Products

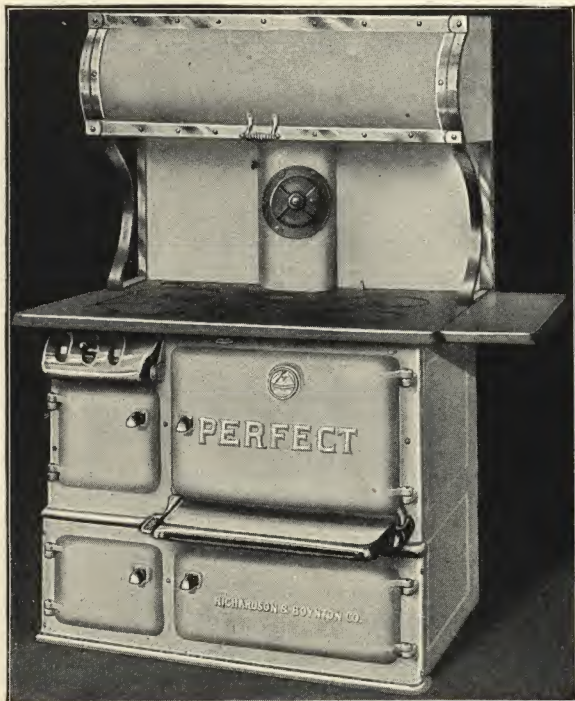
This Company, established in 1837, makes an exceptionally complete line of heating and cooking apparatus, including "Perfect" Warm Air Heaters in both fully piped and pipeless types; "Richardson" round and end feed boilers for steam, hot water and vapor systems; "Perfect" cooking ranges for coal, gas or a combination of both; "Richardson" Hot Water Laundry and Tank Heaters; "Richardson" Automatic Garage Heating Systems, all of which are fully illustrated and described in literature gladly sent on request.

## Richardson "Perfect" Coal Ranges

These ranges are made in many styles and sizes. They are easily handled and are economical in fuel. The large ovens bake to perfection. The powerful waterback assures an abundance of hot water. They are attractive in appearance and strong and durable.

The "Perfect" triangular revolving, ventilating grate bars insure a clean, bright fire, and are easily replaced when necessary. They are the best grates ever used in a cooking range. Grates can be removed without disturbing the brick, grate rest or waterback.

Ranges can be furnished in full enamel or standard black finish.



## Richardson "Perfect" Coal Range

### No. 882 Finished in Either Plain Black or Gray Enamel

A very high grade single oven coal range, finished in either gray enamel or plain black. Has large top with six covers and large broiling door. Can be furnished (as illustrated) with upper Hot Closet or Nickel Plate Shelf.

#### Dimensions

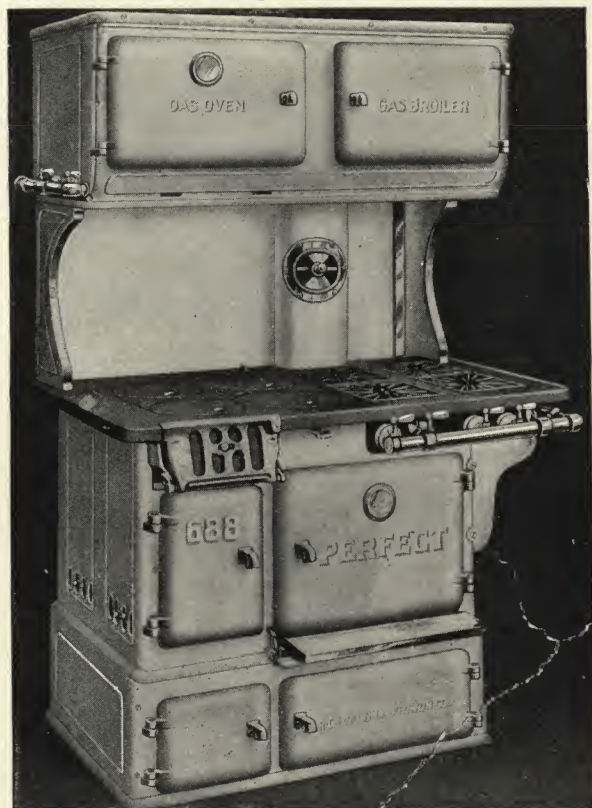
|                                   |          |        |
|-----------------------------------|----------|--------|
| Width of Top.....                 | 39       | inches |
| Depth of Top.....                 | 27       | "      |
| Width of Range, overall.....      | 46       | "      |
| Height of Range.....              | 31       | "      |
| Height with Plate Shelf.....      | 47½      | "      |
| Height with Upper Hot Closet..... | 59       | "      |
| Size of Oven.....                 | 18x18x12 | "      |
| Smokepipe.....                    | 7        | "      |
| Fire Box.....                     | 15¼x8    | "      |

Waterback, connections at side, will heat 40-gallon boiler.

## Perfect Combination Coal and Gas Ranges

These ranges offer the combined advantages of a gas and coal range. Gas and coal can be used separately or together as desired. Finished in either standard black or gray enamel. While the enameled finish costs slightly more, this is more than made up in the saving of labor in keeping up the appearance of the ranges.

The bright gray enamel finish is exceptionally attractive and is easily kept clean—a damp cloth removing all dust that might collect. Three coats of enamel are baked on at a very high temperature, which virtually fuses the enamel with the iron, making a lasting finish. Ranges are fitted with polished iron tops, in keeping with the other attractive features of these ranges.



## Richardson "Perfect" Combination Coal and Gas Range No. 688

This range has a large oven heated by coal and a large, high oven heated by gas. A roomy gas broiler is on the same level as the gas oven.

The coal range has triangular revolving grate bars and a hot closet below the coal oven.

The range top is provided with four coal lids and four large gas burners. The dustproof fire box prevents dirt from falling on the floor when shaking the grate and concealed door catches prevent any collection of dust. Rounded hinges assure the range being easily cleaned with a cloth.

Furnished in either gray enamel or black finish. Can be fitted with ash chute.

#### Dimensions

|                                             |           |        |
|---------------------------------------------|-----------|--------|
| Width of Top.....                           | 43½       | inches |
| Depth of Top.....                           | 26        | "      |
| Width of Range, overall.....                | 48        | "      |
| Depth of Range, overall.....                | 29        | "      |
| Height to Range Top.....                    | 31        | "      |
| Height with Upper Gas Broiler and Oven..... | 63½       | "      |
| Size of Coal Oven.....                      | 18x18x12  | "      |
| Size of Gas Oven.....                       | 20x16x11  | "      |
| Size of Gas Broiler.....                    | 15x11¼x9¼ | "      |
| Smokepipe.....                              | 7         | "      |
| Fire Box.....                               | 15¼x7½    | "      |

Waterback, connections at rear, will heat 40-gallon boiler.



For further details and literature, write to:

**RICHARDSON & BOYNTON CO.**

NEW YORK CITY  
UTICA, N. Y.



# Servel Electric Refrigeration

*...for modern homes  
and apartments*



## Servel Sales, Inc.

*Factory and General Offices:*

EVANSVILLE, INDIANA

*Administrative Offices:*

51 E. 42nd Street, New York, N. Y.

CHICAGO  
DALLAS  
DENVER

LOS ANGELES  
SAN FRANCISCO  
SEATTLE

### Modern

Completely modern in every particular, the new line of Servel electric refrigerators provides a group from which it is easy to select the right equipment for every home having electric service. Good design, the best of materials and skilled workmanship combine to give these electric refrigerators sound reliability. And through the use of recent developments in the application of cabinet finish, servels are as modern and enduring in their appearance as they are in performance.

### Colors

By means of a process exclusive with Servel, modern color effects are now available in all Servel cabinet models. In addition to a specially developed white lacquer finish, Servel color options include Biscay Blue, Ivory Tan, Silver Grey and Crystal Green. From this variety you will find it easy to choose a color to harmonize with even the most modern of kitchen interiors.

### Cabinet

With its trim lines, its pleasing proportions and its rounded corners, the Servel cabinet is one to justify the owner's pride. The enduring exterior finish makes cleaning a simple matter, too. Heavy corkboard is used as insulation, in all Servel cabinets, and its generous layers keep cold in and heat out.

The food storage compartments are lined with vitreous white porcelain. This provides the most sanitary surface, easy to clean. Model numbers of Servel Electric Refrigerators indicate the capacity of the various types, in cubic feet of food storage space. Thus the H-5 has five cubic feet of space; the S-7, seven cubic feet, etc.

### Refrigerating Unit

Compactness and reliability characterize the Servel refrigerating units. Not only may these units be relied upon to

do their work thoroughly and regularly; they can be depended upon to do it economically as well.

Perfect control and steady temperature tend to reduce the frequency with which the motor starts and stops. This cuts down the power cost, since frequent starting consumes a great deal more electricity.

In all Servel Electric Refrigerators, methyl chloride is used as the refrigerant. Methyl chloride is the coldest household refrigerant and its use is another contributing factor to the economy and reliability of the Servel refrigerating unit. Servel units are readily adaptable to remote installations—either single or in multiple.

### Institution Behind the Product

Servel Electric Refrigerators are built by one of the oldest concerns in the industry, an organization of integrity and experience. While many Servels installed years ago are giving satisfactory service today, the Servel you buy today embodies improvements which give it new economy and freedom from adjustment.

### Expert Installation

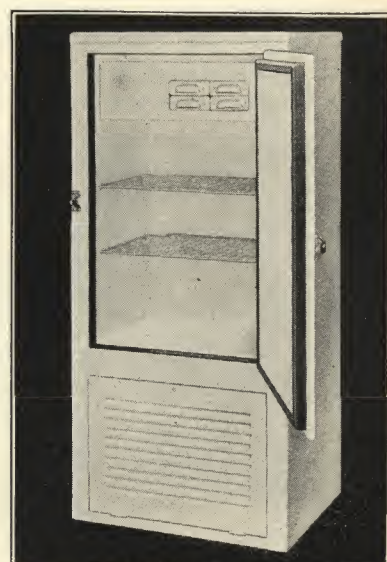
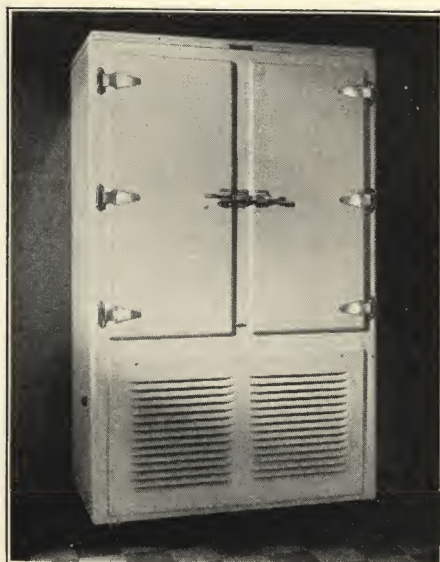
To the present or prospective home owner, the architect and the builder, Servel engineers issue an invitation to consult with them on any problem touching on the selection and installation of Servel refrigeration equipment. At your disposal will be placed the data gained from years of practical study of refrigeration problems. It may be interesting to note, too, that this experience is not confined to residence refrigeration, for the Servel line includes large commercial equipment such as special types of refrigeration for stores, clubs, restaurants, hotels and hospitals; and new Servel water coolers for factories, stores, showrooms and offices.

Please address all inquiries to Evansville, Indiana, where they will receive prompt attention.

The S-7 Servel has a food storage space of 7 cubic feet. Exterior dimensions are: 36 $\frac{3}{4}$ " wide, 26 $\frac{3}{8}$ " deep, 65 $\frac{1}{4}$ " high (including casters). 96 ice cubes are made at one freezing.

The S-10 Servel provides a food storage space of 10 cubic feet. Exterior dimensions: 42 $\frac{1}{2}$ " wide, 27 $\frac{1}{8}$ " deep, 70 $\frac{1}{4}$ " high (including casters). 120 ice cubes are made at one freezing.

The H-5 Servel has 5 cubic feet of food storage space. Exterior dimensions: 26 $\frac{3}{8}$ " wide, 19 $\frac{1}{2}$ " deep, 56" high. Forty-eight ice cubes are made at one freezing.



For further details and literature, write to:

**SERVEL SALES, Inc., Evansville, Indiana**



# Herrick--The Aristocrat of Refrigerators

Manufactured by

## Products

### HERRICK

Cabinets for Electric Refrigeration.  
A—For self contained unit.  
B—For Remote Installation.  
Outside Icing Refrigerators.  
Water Cooling Refrigerators.  
Complete line of refrigerators for residences and apartments.  
Special—Built to order refrigerators.



**WATERLOO, IOWA.**

The above trade mark insures  
**HERRICK QUALITY**

## Products

### HERRICK

Commercial Refrigerators for  
Grocers, Hotels, Restaurants,  
Clubs, Cafes, Delicatessens,  
Florists, Hospitals, and Institutions.  
Usable with Ice or Electricity.  
Built to order—Commercial  
Refrigerators.



Herrick Refrigerator  
No. 444

The Herrick refrigerators shown on these pages are the result of 37 years experience in building refrigerators only. There are Herrick refrigerators giving satisfaction today that were sold over thirty years ago.

### Cases Excell in Beauty

Refrigerator Cases built of sturdy oak, as Herrick builds them, give life-time satisfaction. There are the beautiful new smooth cases in quarter sawed oak finished like furniture and there are the panel cases—in selected plain oak. Refrigerator coach varnish is the stock finish. To co-operate with home builders, Herrick can furnish refrigerators without finish or with prime coats—finish to be applied when the kitchen is finished. At slight additional cost, white exterior finish can be applied or any color sample matched.

### Triplex Insulated Linings—Four Types

(1) Deluxe Opal Plate Glass, (2) One piece porcelain, (3)

Glistening white enamel, (4) Pacific coast spruce—four types of linings—deluxe and service linings to choose from. Better still all are built to be heat resisting, helping to insulate the refrigerator. Opal glass and porcelain linings are backed with wood, white enamel is built on spruce, and the spruce is without finish. These wood or backed by wood linings together with the heavy oak case and thick Herrick insulation between the walls is called triplex insulation.

### Adaptable to Both Ice and Electric Refrigeration

All Herrick refrigerators are now built so that they can be used either with ice or any standard electric refrigeration unit you may choose. There are self contained unit cabinets as shown in cut at the right and cabinets for remote installation (machine in basement) shown above. The Herrick is often used with ice and an electric unit selected and installed later. When ordering specify unit you are planning to install and proper drillings will be made and supports installed.

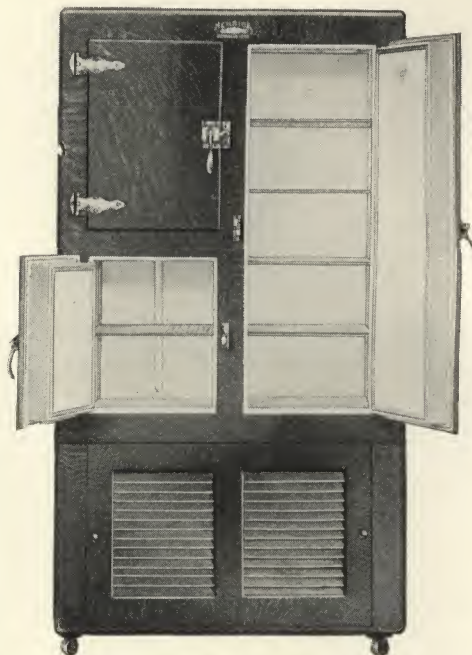
### Plan for Herrick Outside Icing

Herrick Outside icing is a low cost convenience paying big returns. It saves work for the housewife and the iceman for the ice put in

the refrigerator from the OUTSIDE of the house or apartment. The iceman can ice the refrigerator without disturbing the lady of the house or making it necessary for her to wait for him to come. During Winter months the outside icing door can be left slightly ajar allowing the cold outside air to cool the interior of the refrigerator. This feature can be incorporated in either end or either side of the back of any Herrick and is fully described in Herrick household catalog. Write for it today.



Save Money—Include the H. in the Plans



Herrick Refrigerator  
No. 555 Built on Base  
Self Contained Unit Style



For further details and  
literature, write to:

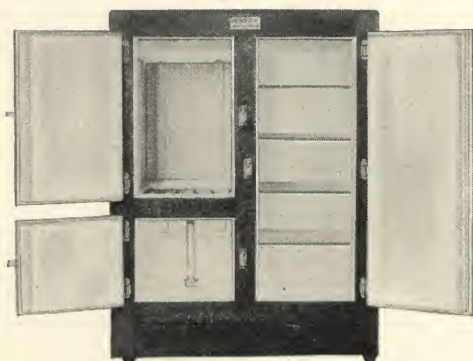
**HERRICK REFRIGERATOR COMPANY**

Waterloo  
Iowa



# Herrick—The Aristocrat of Refrigerators

(Cont'd)



Herrick Refrigerator  
No. 945 Porcelain Lined

No. 554—Opal Glass lined.  
No. 944—Porcelain lined.  
No. 444 — White Enamel lined.

36" wide, 20" deep, 48¾" high. 9.5 sq. ft. shelf space. 115 lbs. ice capacity. 10.5 cu. ft. entire interior. Ice door opening, 12¼" wide, 22½" high.

No. 555—Opal Glass lined.  
No. 945—Porcelain lined.  
No. 445 — White Enamel lined.

38" wide, 22" deep, 50¾" high. 12.3 sq. ft. shelf space. 130 lbs. ice capacity. 13.2 cu. ft. entire interior. Ice door opening, 13¼" wide, 22½" high.



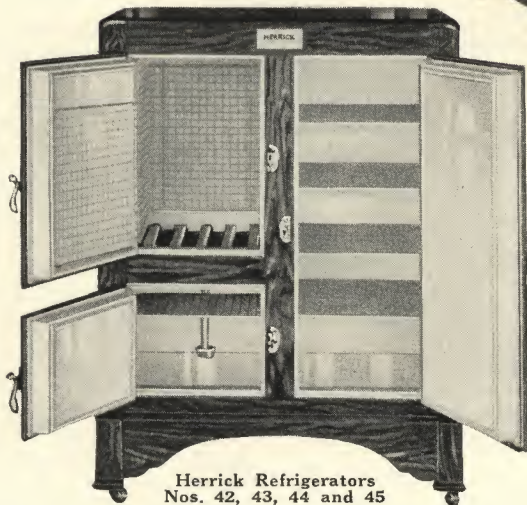
Exterior Herrick Nos. 554, 555, 944, 945, 444 and 445

No. 42—White Enamel lined.  
No. 220—Spruce lined.  
Panel Case.

36" wide, 19" deep, 48" high, 9 sq. ft. shelf space. 90 lbs. ice capacity. 9.2 cu. ft. entire interior. Ice door opening, 12½" wide, 18½" high.

No. 43—White Enamel lined.  
No. 230—Spruce lined.  
Panel Case.

36" wide, 20" deep, 50" high. 10.5 sq. ft. shelf space. 100 lbs. ice capacity. 10.2 cu. ft. entire interior. Ice door opening, 12¾" wide, 19½" high.



Herrick Refrigerators  
Nos. 42, 43, 44 and 45

No. 44—White Enamel lined.  
No. 240—Spruce lined.  
Panel Case.

36" wide, 20" deep, 52" high. 9.6 sq. ft. shelf space. 115 lbs. ice capacity. 10.7 cu. ft. entire interior. Ice door opening, 12¾" wide, 22½" high.

No. 45—White Enamel lined.  
No. 250—Spruce lined.  
Panel Case.

38" wide, 22" deep, 54" high. 12.5 sq. ft. shelf space. 130 lbs. ice capacity. 13.6 cu. ft. entire interior. Ice door opening, 13¾" wide, 22½" high.

Write for Herrick Household Catalog No. 38



Herrick Refrigerator  
No. 415

No. 415—White Enamel lined.  
No. 215—Spruce lined.  
Panel Case.

32" wide, 19" deep, 49½" high. 8 sq. ft. shelf space. 100 lbs. ice capacity. 8.5 cu. ft. entire interior. Ice door opening, 11½" wide, 22½" high.

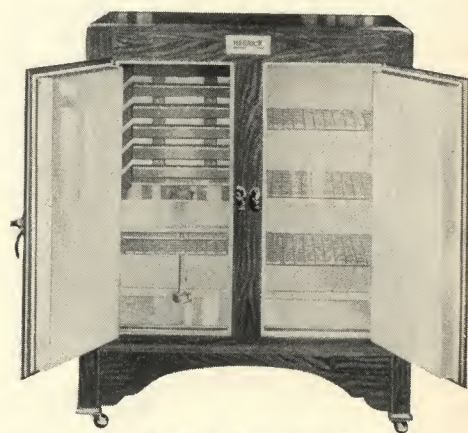
No. 300—White Enamel lined.  
No. 200—Spruce lined.  
Panel Case

34" wide, 18" deep, 43" high. 7.5 sq. ft. shelf space. 60 lbs. ice capacity. 7 cu. ft. entire interior. Ice door opening, 11¾" wide, 14½" high.

No. 41—White Enamel lined.  
No. 210—Spruce lined.  
Panel Case

34" wide, 19" deep, 45¾" high. 8 sq. ft. shelf space. 75 lbs. ice capacity. 8.5 cu. ft. entire interior. Ice door opening, 11¾" wide, 15½" high.

Free Blueprint Catalog to Help You Plan for Herrick



Herrick Refrigerators  
No. 300 and 41



For further details and literature, write to:

**HERRICK REFRIGERATOR COMPANY**

Waterloo  
Iowa



# Holmes Concealed Beds

(The original concealed beds—twenty-two years of success)

Distributed by

**Concealed Bed Corporation, 58 E. Washington St., Chicago**

Exclusive Sales Agents for Holmes Disappearing Bed Co. and Marshall & Stearns Co.  
Representatives in all Principal Cities

## Require Least Closet Space

Holmes Beds require less space than any other disappearing beds. This is important as a matter of only a few inches often necessitates changes in the entire plans.

## Size and Style for Every Need

Holmes Beds are made in "twins," single, three-quarter and full sizes. All use standard sizes of doors and require minimum closet space. Any combination of concealment can be used—French doors, flush doors, panels, bookcases, cabinets, etc., to open into dressing rooms or storage closets. All sizes and styles carried in stock for immediate shipment.

## Most Beautiful Beds Made

Holmes Beds rival the beauty of the most costly furniture. Standard models include all-steel beds in American Walnut or Mahogany grained and varnish finish, as well as attractive enameled steel beds with wood ends in walnut or mahogany, period designs. The use of period design wood head and foot ends marks a new day of beauty in built-in furniture.

## Safety Features—Full Double Deck Coil Springs

All Holmes Beds have automatic foot leg control rod.

It is impossible for foot legs to collapse. Holmes roller beds have patented automatic safety lock which positively prevents "jack-knifing." Holmes Beds use full Double Deck coil or box springs. Holmes coil springs have coils of 11½ gauge wire, making the most comfortable concealed bed on the market. Springs extend full length and width of bed.

## Non-Slip Mattress Clamp

The Holmes Clamp is the easiest to operate. It is a solid casting, holding the bedding and pillows firmly in position, yet requires only a slight pressure to operate it.

## Bumpers and Rollers

No metal, not even a rivet head, is exposed to contact on Holmes Roller Beds. It absolutely prevents damage to furniture and woodwork. Holmes uses solid maple casters fitted with one set of roller bearings and two sets of thrust ball bearings. They will not mar floors or rugs.

## Booklets and Diagrams

Reference booklets are yours for the asking, showing all features of Holmes Concealed Beds, diagrams of closet space and plans of homes, apartments and hotels in which Holmes Beds are used.

## Holmes Roller Bed (Model 39-B) (The Original Roller Bed)

This type of Holmes Concealed Bed can be kept in any part of the home. It can be rolled into a closet, moved into a corner and concealed by drapes, or rolled into another room or into a hall. It is a full size standard bed, equipped with special highly resilient full double deck coil springs, sanitary, vermin-proof, easily cleaned. Specially designed safeguard bumper prevents damage to furniture or woodwork. Special patented double ball-bearing, highly polished, perfectly beveled 4½ in. hardwood maple rollers prevent marring floors or carpets. These rollers will never wear out. An exclusive feature is the Holmes automatic lock which prevents the bed from folding over on top of sleeping surface when bed is down, and is the only roller type bed having this feature. Made with square tubing and cane panels, or wood ends; standard finishes, American Walnut and Mahogany.

Closet space required on straight run in: Depth 5 ft.; minimum door width 2 ft. 2 in.; height 6 ft. 8 in. or 7 ft. Fits other sizes and shapes of closets.



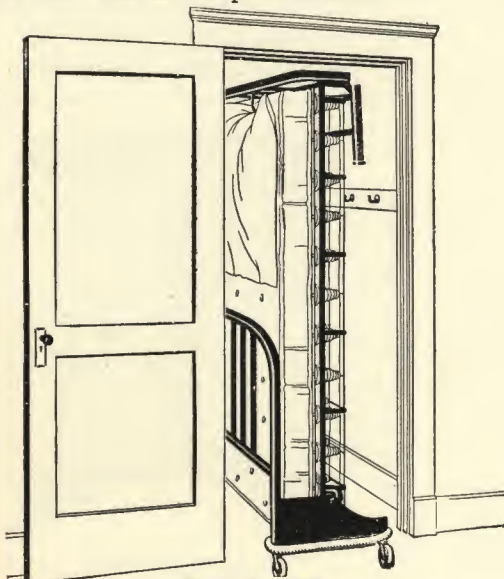
## Holmes "Roll-Out" Recess Bed (Model No. 19R-B)

This type of Holmes Concealed Bed is especially designed for rooms where deep closet space is not available. With the exclusive Holmes roll-out feature, which automatically causes the bed to advance 14 inches when lowered, the head of the sleeper is out in the room and not back in the closet. Bed is fastened directly to the floor, in a shoe on each side, and pulls straight down into the room. There is no revolving mechanism of any kind. It will not damage floors, rugs or carpets as bed rolls on its own track, instead of on carpet.

Closet space required for full size 54-in.

bed: Depth, 18 in. inside of door to base-board (in clear); width 5 ft., using two 2 ft. 6 in. doors; height, 6 ft. 8 in. or 7 ft.

We also make a complete line of standard attached recess beds, without the new patented "Roll-Out" feature, which requires the same closet space as above, using 6 ft. 8 in. or 7 ft. doors. Specifications and full dimensions sent on request.



Model No. 39B



Model 19R-B



For further details and literature, write to:

**CONCEALED BED CORPORATION, Chicago**



# HOLMES CONCEALED BEDS—(Cont'd)

## Holmes Two-Door Pivot Bed (Model No. 45)

This is an exceptionally good-looking, comfortable bed. The spread hides what little mechanism there is. Both doors are always closed. Hinged door can be opened or closed, when bed is in sleeping position, *allowing free access to closet; when closed prevents any draft on sleeper.* It may be installed either with or without the steel standard bar, eliminating all strain on door. When steel standard bar is used it *carries the weight of the bed and door*, permitting the use of French or mirrored doors, and making a perfect installation from a practical and engineering standpoint. Doors of any thickness can be used.



Model No. 45

that can be secured by using Holmes Concealed Beds. These beds are equipped with a full coil spring and use the steel standard which carries the combined weight of door and bed. The center panel or door serves as the access door, and as will be noted from the cut, all doors may be closed when the beds are in use, in this manner eliminating all draft over the beds, as well as the unsightly appearance of an open dressing room. Mirrored doors may be used if they are preferred, in fact, any type of door or panel. If panels are wanted, they can be carried out with similar effect of wall paneling. With this installation, regardless of the position of the beds, access to bath or dressing room may be had at ALL TIMES.

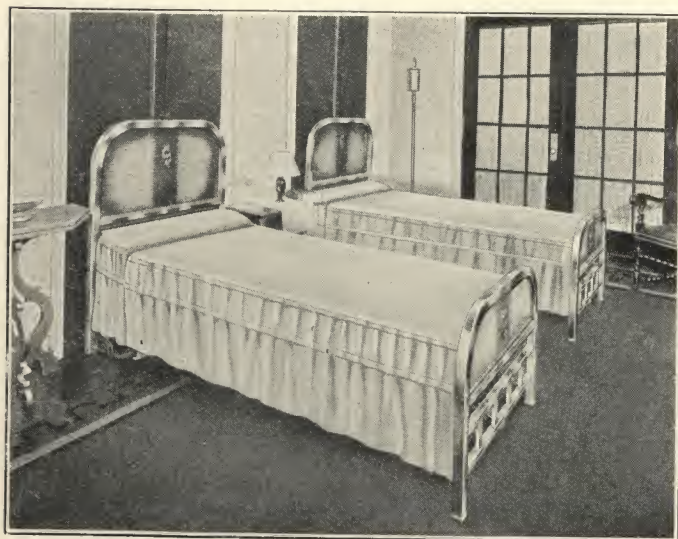
If steel standard bar is not used, specially designed steel angles are fastened across the door where they cannot be seen. Doors 1 3/4 in. thick are then required. If pivot bed without steel standard bar is used, two 2 ft. 6 in. doors may be used for full size bed.

An exclusive feature of all Holmes Pivot Beds is that they are easily adjusted without removing bed from opening, thus avoiding extra expense if building settles. When bed is open all four legs rest firmly on the floor—another Holmes feature.

*Closet space required* on full size bed: Depth 24 in. inside of door to plaster (in clear); height 6 ft. 8 in. or 7 ft. doors, using two 2 ft. 8 in. doors.

## Holmes Twin Pivot Beds (9 ft. Opening) Model No. 45—Full Cane Ends

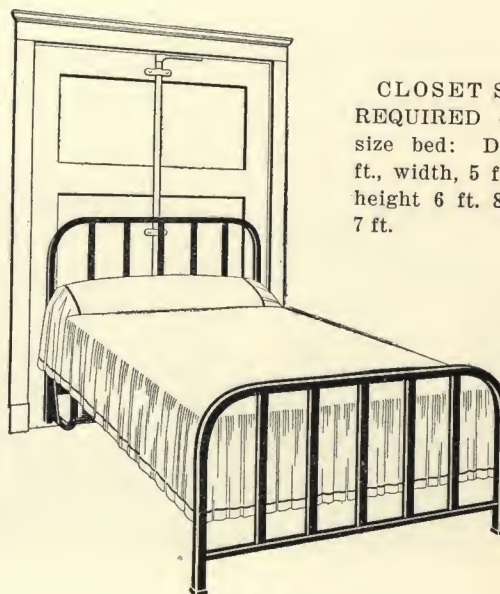
This twin bed installation illustrates the beautiful effects



Model No. 45 Full Cane Panel

## Marshall & Stearns Oscillating Portal Bed (Model No. 51—Cane Panel No. 51B)

This type of concealed bed has given universal satisfaction for many years because it can be used to increase the room efficiency of any type of home, whether it be large or small. Concealment can be made so perfect that the most critical eye is deceived. A handsome buffet, bookcase, desk or mirror may be attached to the front of bed panel. The bed can be pivoted into the room and lowered into place by a child, it works so easily. It has no complicated head and foot operating mechanism. If used in connection with a dressing room or storage closet, the bed may be turned slightly to allow access. This can easily be done when the bed is down—it does not have to be up-ended.



Model No. 51

**CLOSET SPACE  
REQUIRED** on full  
size bed: Depth, 2  
ft., width, 5 ft. 4 in.,  
height 6 ft. 8 in. or  
7 ft.

For further details and  
literature write to:

**CONCEALED BED CORPORATION, Chicago**



# MURPHY IN-A-DOR BEDS

Manufactured by

THE MURPHY DOOR BED CO.

OFFICES AND DISPLAY ROOMS IN ALL PRINCIPAL CITIES

22 W. Monroe St., Chicago  
315 N. 10th St., St. Louis  
714 Terminal Sales Bldg., Seattle  
1140-42 Hanna Bldg., Cleveland  
1534 Blake St., Denver  
Crocker Bldg., San Francisco  
7th Floor, Kresge Bldg., Detroit, Mich.  
1807 S. Main St., Los Angeles  
Keefer Bldg., Montreal, Can.  
1919 Pacific Ave., Dallas, Tex.



This Trade Mark on  
All Murphy Beds.

19 W. 44th St., New York  
1309 Keenan Bldg., Pittsburgh, Pa.  
Neff-Stiles Bldg., El Paso, Tex.  
234 Columbia Bldg., Miami, Fla.  
2301 Main St., Houston, Tex.  
1713 W. End Ave., Nashville, Tenn.  
319 Dryades St., New Orleans, La.  
225 2nd Ave., S., St. Petersburg, Fla.  
1114 Grand Ave., Kansas City  
33 Luckie St., Atlanta, Ga.  
New England Furn. & Carpet Co., Minneapolis

## Products

The principal product of this Company is the famous MURPHY IN-A-DOR BED, which is made in various types and sizes to meet all installation conditions. In addition, this Company makes Steel Kitchen equipment—Cabinets, Refrigerators and Ironing Boards.

## Literature and Technical Service

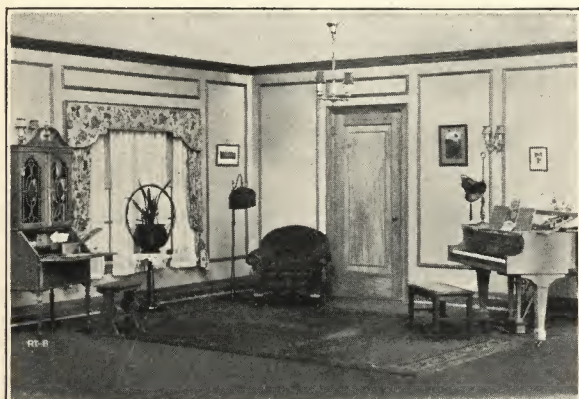
Literature explaining in detail each product can be had for the asking, from any of the offices listed above. A Technical Service Department is maintained to co-operate with you—you should take advantage of this service and get the most out of MURPHY Equipment.

## Why Every Home Should Have a Murphy Bed

That every home has a need for a MURPHY BED has been proven by thousands of installations in homes of all sizes. These needs are many and varied—the sum total of all of them are, fundamentally, economic.

The average home costs about one thousand dollars a room to build. The size of a home is determined by the number of sleeping rooms required by the family which is to occupy it—these with the kitchen, dining room and living room fixes the number of rooms.

If it were not for this cost of a thousand or more dollars per room, every lover of a home would have some one room in addition to those actually required. This "other room" might be a Sun Parlor, Den, Children's Room, Sewing Room, or a Sleeping Porch.



"Another room" without the cost of building it. Perfect concealment behind an ordinary door.

A bed room equipped with the ordinary bed is used but eight hours of the twenty-four—the other sixteen hours it is unoccupied and serves only as a store room for the furniture. Properly equipped with a MURPHY IN-A-DOR BED, a bed room can be made available twenty-four hours of the day. In this way another room can be added to the home at no additional cost—no furnishing, decorating, or heating expenses and last, but not least, no additional household care.

Here, then, is proof that you need not forego that other room. When you build, prepare for a MURPHY IN-A-DOR BED—it is concealed in an ordinary closet behind an ordinary door.

## The Murphy In-A-Dor Bed

The MURPHY IN-A-DOR BED differs from the ordinary bed only in that it is raised to a vertical position and pivots into a closet—it is made in the same standard sizes as the ordinary bed—is equipped with the same standard spring—therefore, furnishes the same sleeping comfort as a good ordinary bed. Its patented multiple spring balance and method of pivoting make its operation simple and easy—requires no more effort than moving a chair. Moving on its pivot clear of the floor, it requires no guiding—does not mar floors or woodwork.

Murphy Beds are made in a variety of designs and finishes.



The housewife may use the same beautiful coverings on a MURPHY IN-A-DOR BED as she does on the ordinary bed.



For further details and  
literature, write to:

THE MURPHY DOOR BED COMPANY

22 W. Monroe St.  
Chicago

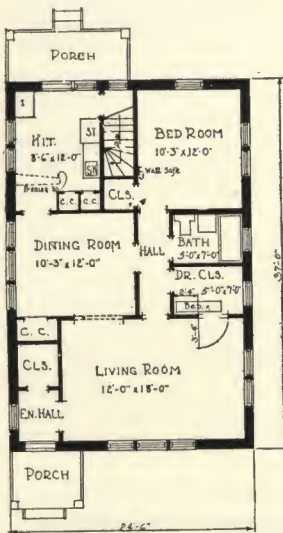


## MURPHY IN-A-DOR BEDS (Continued)

Our Technical Service Department will help you add another room to your home at a saving of a thousand dollars, or more. This service for the asking—no obligation.

Below are two practical applications of MURPHY BEDS in homes.

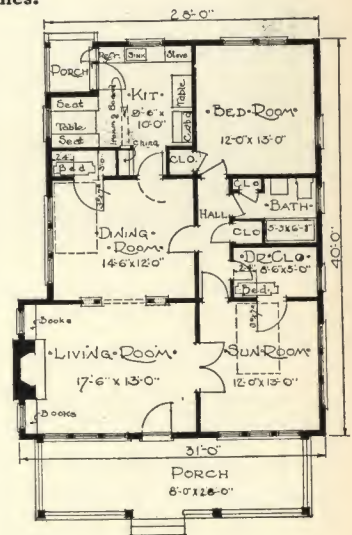
Plan No. E24-37



A four room bungalow with sleeping accommodations equivalent to five rooms. Here the MURPHY BED is used in the living room—can be used as a spare bed or for regular use, if desired. Note privacy of bath—plenty of closet room.

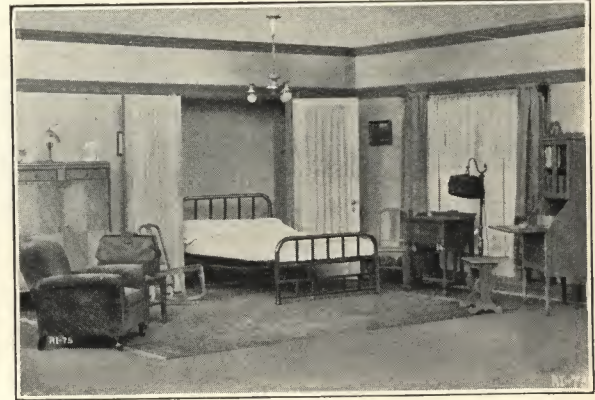
Plan No. E28-40

With the French doors to the living room closed, the sun parlor in this five room bungalow becomes a sleeping room with the same privacy as the bed room. In the daytime this room is available for other purposes. Another room without the cost of building. By placing a MURPHY in the closet off of the dining room, a spare bed is provided.



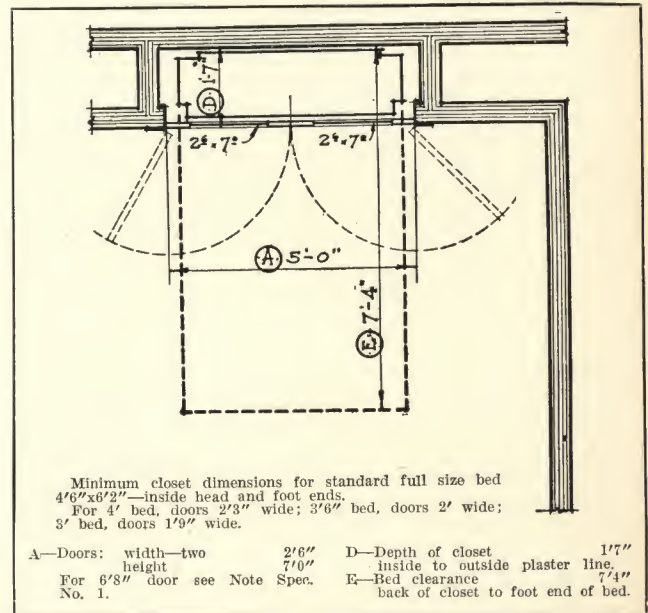
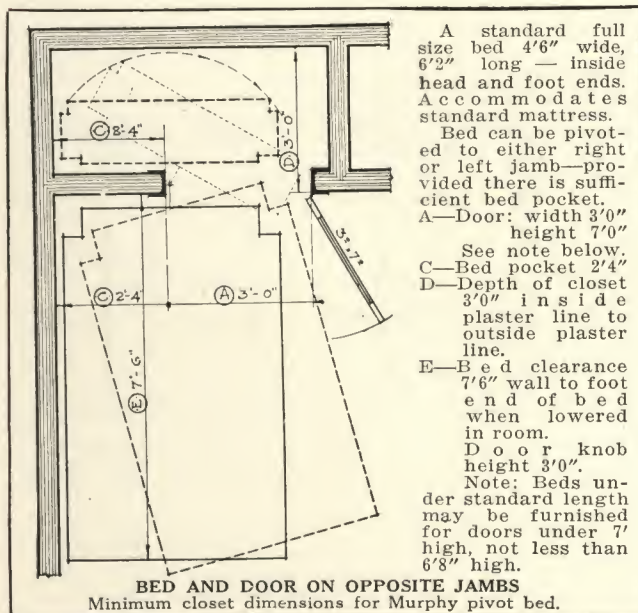
MURPHY IN-A-DOR INSTALLATION NO. 1

Showing position of door and the bed ready for use. Standard stock door. Door and bed independent of each other.



MURPHY RECESS INSTALLATION No. 13

Fastened to floor in shallow recess—lowers straight to floor, does not pivot. When on floor, ready for use, bed is projected forward so head, end is in line with door opening.  
Note: When closet can not be provided, a canopy rod can be furnished which permits concealing bed behind draperies.



For further details and literature, write to:

**THE MURPHY DOOR BED COMPANY,**

22 W. Monroe St.  
Chicago







# "The BEST Glass" for WINDOWS

**Quartz-Lite**  
The Ultra-Violet Ray Glass

Made by  
**AMERICAN WINDOW GLASS COMPANY**  
PITTSBURGH, PA.

**AMERICAN WINDOW GLASS CO.**  
PITTSBURGH, PA. U.S.A.  
TRADE MARK

District Sales Offices:  
NEW YORK CHICAGO BOSTON  
ST. LOUIS ATLANTA MEMPHIS

NEW ORLEANS  
SAN FRANCISCO

Factories:  
ARNOLD, PA. MONONGAHELA CITY, PA. JEANNETTE, PA.  
BELLE VERNON, PA. KANE, PA. HARTFORD CITY, IND.

## Window Glass

The window glass manufactured by this company, known to the trade as "The BEST Glass," is uniformly flat, with a perfectly smooth surface and a brilliant lustre unequalled by any other window glass. The American Window Glass Company's standard of grading for quality is the recognized standard for the United States and is higher than foreign standards. "The BEST Glass" shows less distortion, has greater tensile strength, and will withstand greater wind pressure than any other clear glass used for windows.

## Crystal Sheet Window Glass

All window glass manufactured by this company, heavier than single or double strength, such as 26 oz., 29 oz., 34 oz., and 39 oz. or 3/16th glass is known to the trade and sold as crystal sheet.

Crystal sheet glass possesses a brilliant surface, is of uniform thickness and approximates the flatness of plate glass. It is an acceptable substitute for a great many uses and is lower in price than polished plate. Being a lighter product than plate glass, approximately 25 per cent of the cost of sash weights can be saved by its use.

## Picture Glass

The American Window Glass Company is the sole producer in this country of 16 oz. picture glass in selected and superfine qualities. This product is generally recognized as the finest picture glass in the world.

## Photo Glass

This company manufactures photo glass for camera use, lantern slides and glass for diagnostic X-Ray plates.

## Ground Glass and Chipped Glass

We are also manufacturers of ground and chipped glass in plain and fancy designs.

## Identification Labels

Each light of single strength and double strength AA Quality and A Quality window glass, as well as selected and superfine quality picture glass of the American Window Glass Company's manufacture, is labeled for the protection of the purchaser. In the case of picture glass the label appears upon the paper between the lights.

## Suggested Specifications

"All window glass to be used in this building shall be the American Window Glass Company's make or equal thereto and shall be (here specify the thickness and quality of glass desired). All 'A' Quality glass furnished must have the manufacturer's label on each light."

If the American Window Glass Company's glass is specified, the company will follow up the installation whenever requested, without expense to the party requesting this service and report whether the glass furnished is the kind, quality, and thickness specified.

## Grades and Qualities

"AA" indicates the best quality of window glass. "A" indicates the next best grade and "B" the next quality.

Grade "B" is suitable for basement and attic windows, but only grades "A" or "AA" should be used for glazing the windows of the principal rooms of a dwelling.



Because the cost of window glass is trifling compared to the cost of other material is no reason to disregard the prominent part it plays in beautifying a house. This is especially true when you consider that you can buy "The BEST Glass"—clear and flat, exceptionally strong—for the same low price as the ordinary kind.

## Thickness and Weight

Single Strength window glass ranges from 10½ to 12 lights to the inch and weighs 18½ ounces per square foot. Double Strength glass ranges from 8 to 9 lights to the inch and weighs 24½ ounces per square foot. Glass thicker than Single Strength or Double Strength is known as "Heavy Sheet Glass" and is designated by weight in ounces per square foot.

26-oz. Glass, range 7½ to 8 lights to the inch  
29-oz. Glass, range 6½ to 7 lights to the inch  
34-oz. Glass, range 6 to 6½ lights to the inch  
39-oz. Glass, range 5 to 5½ lights to the inch  
(A sheet of 39-oz. glass is about ⅜-inch thick.)

"The BEST Glass" is obtainable from any of the leading distributors throughout the United States.

## Quartz-Lite Book Free for the Asking

Write today for specification sheet and booklet giving detailed information concerning this new health glass. This booklet outlines the results of Quartz-Lite tests conducted by well known scientists and describes the wonderfully beneficial effects of the ultra-violet rays of the sun transmitted by Quartz-Lite. Requests for this book and our Complete Window Glass Specifications should be sent to our Specification Bureau, Pittsburgh, Pa.



For further details and literature, write to:

**AMERICAN WINDOW GLASS COMPANY**

Farmers Bank Bldg.  
PITTSBURGH, PA.



# VITA GLASS SUN ROOMS

**Made by**

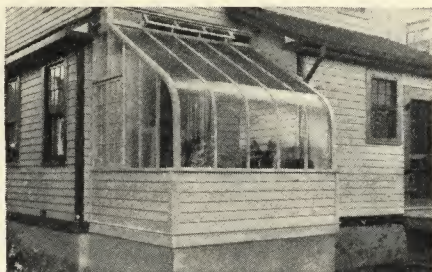
**ORCUTT & COMPANY, Elizabeth, N. J.**

**Product:**

A new kind of sun room built like a small conservatory but glazed with Vita glass which transmits the health-giving ultra-violet rays which are excluded by ordinary window glass.

## Healthful Effects of Ultra Violet Rays:

The beneficial effects of direct sunlight as a health builder have long been recognized, the active healing agent being the ultra-violet rays. Vita glass, one of the latest achievements of science, admits the health-giving ultra-violet rays which pass into the body, refreshing and rebuilding it, as positively proved by many scientific experiments. The invention of Vita glass has made it possible to get practically the same results indoors as were formerly enjoyed only in the open. The Vita Ray Sun Room provides the method of using Vita glass so as to bring the ultra-violet rays not only through the three sides, but through the roof as well.



### Principal Uses:

**For babies and young children.** The building up processes of the first five years are of tremendous importance and will be felt during the entire lifetime. Children can play in the Vita Ray Sun Room with the least possible clothing so that practically the entire body is exposed to the healthful action of the ultra-violet rays. Older children may also be benefited by using it for recreation or study.

**As a lounge or rest room.** Those who are perfectly well will enjoy the Vita Ray Sun Room simply for its bright cheerfulness, and will, at the same time, overcome fatigue and gain added strength and vigor.

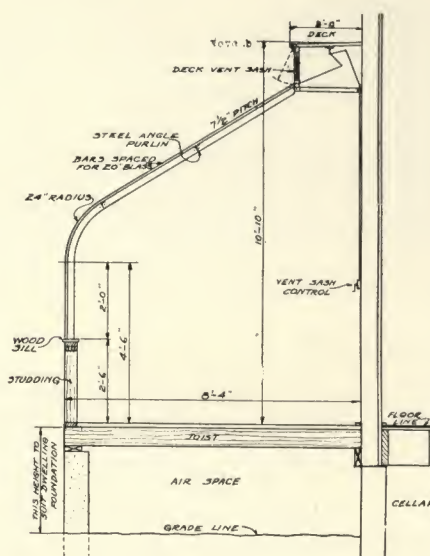
**For elderly people.** Used as a sitting room for those who are advanced in years, it can add greatly to their enjoyment of life by increasing their vitality and their resistance to the infirmities of old age.

**For invalids and convalescents.** Probably nothing else they could do would be of greater benefit than to spend the winter days in the cheerful Vita Ray Sun Room, subjected constantly to the healing effects conveyed to them through Vita Glass. The ultra-violet rays have proved of great benefit in the treatment of asthma, tuberculosis and other pulmonary diseases.



**Construction:**

The Vita Ray Sun Room is constructed very much like a conservatory, Vita Glass being substituted for ordinary window glass. It is built in four widths, approximately 8'4", 8'10", 9'4", 9'10". The shortest standard length is 7'6", increasing in multiples of 20½ inches. It is made of steel and cypress, of excellent workmanship throughout, by manufacturers who have had many years of experience in designing and developing glass structures. The foundation wall and wall of the sun room up to the sill can be made to match the construction and harmonize with the architecture of the house. The Vita Ray Sun Room does not shut out any light from the adjoining rooms.



### Shipped Ready for Erection:

After receiving a rough sketch of the floor plan of the house to which the Vita Ray Sun Room is to be attached, we submit a definite proposition and estimate of cost. Upon receiving the order, complete materials are then shipped promptly with detailed instructions for erection.

### Low Cost:

The cost is less than the cost of an ordinary sun room.

*Write us for full information on Vita Glass Sun Rooms. They mean quick sales for you and vigorous health for the family of the purchaser. Ask us about our Agency proposition.*



For further details and literature, write to:

**ORCUTT & COMPANY, 1146 East Grand St., Elizabeth, N. J.**



# Vita Glass...

## the HEALTH-GIVING Window Glass

Manufactured by the  
**VITAGLASS CORPORATION**

50 East 42d St., New York, N. Y.

### What Is Vita Glass?

A remarkable new window glass which looks like ordinary window and plate glass and does everything those glasses do. But in addition it permits the passage indoors of the invisible ultra-violet light rays, which ordinary glass absorbs and keeps out of the house. These rays are the vital healing and health-giving rays of light deemed so necessary by the medical profession in the prevention and treatment of various diseases.

### Where to Use Vita Glass

Anywhere in place of ordinary window glass. It is already in use in homes, apartments, schools, hospitals, sanitariums, hotels, offices and factories. In the home Vita Glass has proved its value in sun porches, sun rooms, nurseries, and any other rooms where members of the family spend a great part of their time.

### Why Use Vita Glass

Medical science has definitely established that the health, growth and vitality of human beings—of all animal and vegetable life—are dependent on the same vital ultra-violet rays transmitted by Vita Glass. These rays do four things:

1. Increase the red corpuscles in the blood. Increase resistance to and aid in curing colds, influenza, tuberculosis, and other diseases. Increase mental and physical vitality.
2. Aid the blood in absorbing materials which build and strengthen bones and teeth. Prevent rickets in children.
3. Tan the skin and are good for many skin diseases.
4. Kill bacteria and germs.

### Proof of Value of Vita Glass

The greatest proof of the efficiency of this glass lies in its successful use in private homes, hospitals, and schools. Vita Glass is approved by the American Medical Association. Physicians everywhere recognize the healing and health-building value of ultra-violet rays as supplied by Vita Glass and urge its use in private homes, hospitals and schools. Tests made by the U. S. Bureau of Standards at Washington, by Johns Hopkins University, Columbia University, the University of Toronto, Canada, have all proved the efficiency of Vita Glass. For nearly four years this glass has been thoroughly experimented with and used with remarkable results in England.

A scientific school test was made in a public school in England. Two classrooms were selected. One was equipped with Vita Glass and the other with ordinary window glass. Children in both rooms were equal physically and mentally. The results at the end of 9 months:

|                                                | Class Under<br>Ordinary Glass | Class Under<br>Vita Glass |
|------------------------------------------------|-------------------------------|---------------------------|
| Increase in weight.....                        | 2.83 lbs.                     | 6.11 lbs.                 |
| Increase in height.....                        | 1.22 in.                      | 1.86 in.                  |
| Absences in the Vita Glass classroom decreased | 43 per cent.                  |                           |

### Forms of Vita Glass

In clear, transparent form for windows, sun porches, etc., wherever unobstructed vision is desired. While it does not offer the polished surface of plate glass, it affords perfectly clear vision, with the usual qualities of blown window glass.



### Cathedral

For use wherever privacy is desired. Transmits light and ultra-violet health rays as efficiently as the clear glass. Used for skylights, portions of sun porches, upper panes of windows, bathrooms and rooms for sun baths.

### In Cathedral Wire Glass Form

For use where building regulations require a wire glass.

| Type                     | Nominal<br>Wt. Per<br>Sq. Ft. | Thickness | Maximum<br>Size<br>Available | Maximum<br>Glazing Size<br>Recommended |
|--------------------------|-------------------------------|-----------|------------------------------|----------------------------------------|
| Clear .....              | 21 oz.                        | 1/8"      | 40"x60"                      | Same as double strength without glass  |
| Cathedral .....          | 24 oz.                        | 3/16"     | 36"x96"                      | Same as double strength without glass  |
| 3/16" Cathedral .....    | 36 oz.                        | 3/16"     | 36"x96"                      | Usual for this thickness               |
| 1/4" Cathedral .....     | 48 oz.                        | 1/4"      | 36"x96"                      | Usual for this thickness               |
| 1/4" Cathedral Wire..... | 48 oz.                        | 1/4"      | 30"x96"                      | Usual for this thickness               |

Vita Glass may be glazed in any size suitable to thickness.

### Installation.

For replacements of old windows and in new construction Vita Glass is installed like any other glass.

### How to Specify Vita Glass.

Vita Glass, where noted on plans, should be designated, "Lamp-lough Vita Glass, as supplied by the Vitaglass Corporation of New York, or its approved distributors." Each light should bear an identifying label; label to remain on the light for the architect or builder's inspection.

### Guaranteed.

Each light of Vita Glass is cut to size as ordered, labeled, and is shipped prepared direct to the terminal designated on the order. Each pane of Vita Glass is absolutely guaranteed to be of the same high standard and is able to transmit ultra-violet daylight rays to the extreme limit of the sun's spectrum—2900 Angstrom Units. Tests of every batch of Vita Glass insure this.

### Cost.

Vita Glass is the only proven fully efficient and inexpensive substitute known for costly fused quartz heretofore used for transmitting ultra-violet rays. Cut to exact measurements, ready to place and fasten in the window, Vita Glass, Clear, is now sold in the United States at \$2.00 a square foot delivered at terminal points, including freight and breakage insurance to that point. There is a nominal charge for special packing. Cathedral Vita Glass 1/4-inch thick costs \$1.60 per square foot. A discount is allowed for quantity orders.

Further information on prices can be obtained through the regular glass distribution channels or from the Vitaglass Corporation. Write to Dept., H. B. C., Vitaglass Corporation, 50 East 42d St., New York City.



For further details and  
literature, write to:

**VITAGLASS CORPORATION**

50 East 42nd St.  
NEW YORK, N. Y.



# "Breinig-Built" Varnishes—Enamels—Paints

Scientifically Prepared  
to Save the Surface



Beauty and Protection  
in Every Can

*A Few of the Products Taken from Our Very Complete Line Follow:*



## Old Masters' Enamel

This enamel is of the highest quality and is suitable for either exterior or interior use. It has excellent covering qualities, flows freely, does not show brush marks and will not sag. Dries free from dust in six to eight hours, and hard in forty-eight hours. Will not yellow with age and can be washed with soap and water. The beautiful finish obtained through the use of this enamel reflects an atmosphere of cheer and harmony in any interior.

## Breinig Brothers' Prepared Paint

Scientifically made, it assures to the consumer a maximum of covering and spreading properties. It produces an extremely durable film, having exceptionally long life. It has great covering capacity, and, in addition, presents a permanent foundation for repainting work.

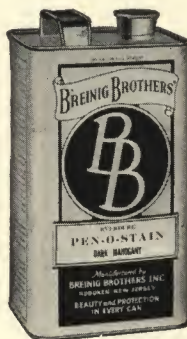
Only pigments and colors of the highest quality, together with pure linseed oil and sufficient dryer, are used in the manufacture of this paint.



## Duo-var—The Waterproof Varnish

This is an all purpose varnish for floors, trim, linoleum, furniture and all interior and exterior surfaces. Dries hard overnight and is sold under an absolute guarantee to give complete satisfaction.

It is absolutely waterproof and will successfully and convincingly withstand any test advocated for any waterproof varnish.



## Ever-Dure Pen-O-Stains

These are the highest type stains of their kind on the market. They penetrate the wood to which they are applied deeply and thoroughly, do not raise the grain, are true to color, and produce a finish that develops and accentuates the beauty of the wood.

With the exception of mahoganies, these stains may be used as one coat finishes, or they can be finished over in wax effect by using Breinig Brothers' Shellac and Ever-Dure Prepared Wax. If a varnish finish is desired, wood surfaces may be filled over with Genuine Silex Paste Wood Filler, and followed with required number of coats of our Architectural Varnishes.

## Wallsheen

Wallsheen aptly describes this product. After it is applied, its general appearance is flat but when looking at it from an angle, it will be observed that it has a slight "sheen," which decorators now demand.

The film is tighter and less porous than most flat paints. Therefore, it can be more easily washed and cleaned.

It is produced in a variety of light artistic tints. It spreads evenly, flows out smoothly and does not show laps or brush marks, and can be stippled if desired. Designed for use on plaster, concrete, brick, wallboard, canvas, or wood walls and ceilings.



## Luxite

An enamel finish for interior walls and woodwork, especially adapted for kitchens, bathrooms and pantries. This porcelain-like finish does not soil easily and can be washed as often as necessary, without injury to the surface.

Luxite has amazing hiding qualities. One coat will cover the average surface while two coats will cover any surface, no matter what its condition may be. It remains white and will not crack or chip.

It is made in Flat, Egg-shell and Gloss.



For further details and literature, write to:

**BREINIG BROTHERS, Inc., Hoboken, N. J.**  
Paint and Varnish Manufacturers for Three Generations

HOME BUILDERS CATALOG

See Next Page



# "Breinig-Built" Varnishes—Enamels—Paints



## WHY WE CALL IT "BREINIG-BUILT"

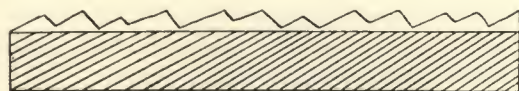


The average paint film is less than 1/300 of an inch thick, and of necessity it must be of such character as to withstand the action of the elements, varying from the hottest summer sun to below-zero weather. Ample allowance must be made for contraction and expansion, and the paint must retain its fresh appearance as long as possible. Likewise it must be made so that it will wear down evenly over a period of years, in order that the surface may be in proper condition for repainting.

In "BREINIG-BUILT" paint we have been able not only to amply cover these necessary qualifications, but in addition have been able to give it most exceptional flowing qualities. The vehicle of our paint is pure linseed oil, with just the necessary amount of dryer, and at considerable added expense we treat the oil in a scientific manner. We do not add anything nor do we take away anything from the oil, but the final result gives our paint more "flow" than those paints made from untreated linseed oil.

From close inspection and comparative tests of the two characters of paint films—one made with our treated linseed oil and the other with an untreated oil—we find that the place where the film breaks first is in the tiny crevices left by brush bristles. As a chain is no stronger than its weakest link—so also is a paint film, and its weakest point is in the hollows left by brush marks. It follows naturally that paint with an even flow will leave less brush marks than the other type. As an illustration:

We show a cross-section of wood covered with an untreated linseed oil film.



On the other hand, a cross-section of "BREINIG-BUILT" paint looks like this:



It is at once apparent that the "BREINIG-BUILT" film gives a more even and "flowed-out" coating. It follows naturally that this film will not retain as much dirt and dust as the other type, and will therefore keep its fresh appearance longer, as well as affording better protection to wood and metal surfaces, as moisture cannot penetrate so easily through this more even film. It also has much more gloss which it retains well.

A properly made paint film may be quite correctly likened to concrete—the different parts, properly compounded, make a perfect whole, and while the film is extremely thin, it may be truly said that it is scientifically "built."

When one considers that the cost of materials used in home decoration and preservation represents 25% of the total cost of the work, it can readily be seen that the use of inferior products is not economical.

Regardless of the amount of money spent in the construction of the home, it is wasted unless finishing products of the highest quality are used to not only properly protect each and every surface, but to insure beautiful color combinations for the exterior and interior, and, in the case of Stain and Varnish effects, to develop the hidden beauty in the wood.

It costs no more to use BREINIG BROTHERS' VARNISHES, ENAMELS and PAINTS than the ordinary finishes to be found on the market; in fact, quite the reverse is true, for by their use beautiful and lasting effects will be obtained.



For further details and  
literature, write to:

**BREINIG BROTHERS, Inc., Hoboken, N. J.**  
*Paint and Varnish Manufacturers for Three Generations*



Manufactured by

**Felton-Sibley & Co., Inc.**

136-38-40 N. Fourth St., Philadelphia

## FELTON-SIBLEY PRODUCTS



This actual photograph was taken after the above panels had been exposed to the weather for three years. The two left hand panels were painted with two coats of Felton-Sibley Ready Mixed Paint—the right hand panels with two coats of ordinary paint. Note the difference!

### Exteriors

When you paint your house you make an investment. The most important item in the investment is the paint itself. If the paint is poor the money put into labor or time has not been well spent, and repainting will soon be necessary.

Felton-Sibley Ready Mixed House Paints have been noted for more than half a century for one thing—never-varying quality. For this reason a given amount of Felton-Sibley Paint will cover a much larger area and will give your property maximum protection for the maximum number of years. Go to the Felton-Sibley dealer and see his color guide which will be a real aid in selecting the proper color scheme.

Felton-Sibley Paints “—certainly do last.”

### Walls

EF-ES-CO WALL FINISH, (flat or gloss finish) becomes more and more popular every year. The trend seems to be toward sanitary, beautiful walls and this finish can be used to obtain those pleasing modern effects; such as stipple and stencil and other original treatments. Felton-Sibley Color Guide tells you how you can do it.

EF-ES-CO comes in a variety of popular shades, is easy to apply and covers a larger area of wall surface. It simplifies wall decoration and also simplifies the care of the wall after it is finished.

### Floors, Woodwork

Lava-Var is the ideal varnish for floors, trim, etc. It is absolutely waterproof and will not turn white. It leaves a tough, elastic finish that will not mar easily, won't dent or show heel marks.

Lava-Var is furnished clear or in colors and is an outstanding, long-lasting, quality product.

### Shingles

You can greatly prolong the life of shingles and also secure the most artistic and beautiful effects by using Felton-Sibley's Shingle Kote Stains. The cost of Shingle Kote may be considered as Shingle insurance. The increased life of the shingles more than pays for it.

And at the same time you greatly improve the appearance of your house—and increase its value.

For further details and information write to:

**FELTON-SIBLEY & CO., Inc.**

136-38-40 N. Fourth Street  
Philadelphia



# THE MARIETTA PAINT & COLOR COMPANY

**Products**  
Wood Stains  
Wood Fillers  
Paints  
Varnishes  
Lacquers



**Executive Offices and Factory**  
Marietta, Ohio  
Branches—Columbus, Ohio  
and High Point, N. C.  
**DISTRIBUTORS IN**  
PRINCIPAL CITIES

## Marietta Wood Finishing System

**NEW SERIES ACID STAINS**—For Northern Maple, Birch and Beech  
Official Colors of Maple Flooring Manufacturers Association, Chicago, Ill.

**T**HIS group represents the highest development of the stain maker's art. Most of these colors are obtained by chemical reaction rather than dyes. The photographic principles of color development are utilized to some extent, but more largely we depend upon the reactive value of the wood itself.

On Northern Hard Maple these stains produce results of indescribable beauty, and this wonderful wood which will outwear marble, and which has been, owing to its previous impracticability to stain properly, used only in factories, kitchens, etc., is now gaining in popularity for home use.

On Birch the colors, while not exactly the same as on Maple, possess great beauty.

Hundreds of tests under the Ultra-Violet Lamp indicate unusual fastness to light, the browns, grays, etc., really becoming deeper and richer with age and the green, blue, etc., changing not a great deal.

### Application of Acid Stains

These stains can be applied by anyone who

exercises ordinary care. If applied to a new floor, the surface should first be well sanded and dusted. The stain should then be applied with a soft brush, using plenty of stain. Flow on parallel with the floor boards, covering a strip wide enough so that it can be easily reached. Put on plenty of stain and then with no more stain on the brush go over the strip just stained and even it up. With ordinary care in application these stains will not lap or streak.

The stained surface should be allowed to dry at least six or seven hours, depending upon drying conditions, and when dry should be coated with American Lacquer. This material is a color developer and must be used. It is applied with a brush and care should be taken to see that no part of the stained surface is left untreated.

American Lacquer will dry in about two hours and should be lightly sanded, after which a coat of Varnitro Fluid Flooring should be brushed on in the same way that one would apply a coat of heavy-bodied shellac.

In about four or five hours, the Varnitro should be sanded and a second coat applied.

If it is desired to wax, do not apply second coat of Varnitro, but sand first coat as directed and apply Marietta Paste Wax. This will polish to a beautiful finish with either a weighted polishing brush or a power polisher. The stain can be thinned with distilled water. Varnitro Reducer will remove American Lacquer or Varnitro from the hands or brushes.

### Old Floors of Maple—Birch—Beech

Remove all old finish with Varnish Remover. Sand with a power sander down to clean white wood and follow above directions.

### Colors and Numbers

|                      |          |
|----------------------|----------|
| Pastel Green .....   | No. 5173 |
| Silver Gray .....    | " 4483   |
| Dove Gray .....      | " 5267   |
| Royal Blue .....     | " 5266   |
| Early American ..... | " 5273   |
| Spanish Brown .....  | EB-66    |
| Autumn Brown .....   | B-91     |

## SPARTAN ART WOOD STAINS

### Maco Type

For Mahogany, Walnut, Oak, Birch, Maple, Beech, Gum, Pine, Fir, Cypress

This group of stains is made under the Maco patent which process is owned exclusively by The Marietta Paint & Color Company.

These products are distinctly different from any other wood stains on the market. They are fast to light.

They do not require wiping.

They do not require sanding.

These stains are completely absorbed by the wood and bring out a depth and brilliancy of tone not possible in ordinary oil stains.

They are the only non-grain-raising stains on the market which can be either varnished or lacquered without working up or bleeding.

Maco Stains partake of the good qualities of water, oil, spirit and acid stains without any of their deficiencies, and through their peculiar qualities may be used successfully on all kinds of woods.

On open-grained woods, such as Mahogany, Walnut, and Oak, we recommend the use of Marietta Paste Filler in the proper shades.

### Colors and Numbers

|                      |         |
|----------------------|---------|
| Early English .....  | No. 830 |
| Cherry .....         | " 340-A |
| Mahogany .....       | " 111-A |
| Dark Mahogany .....  | " 103-A |
| Brown Mahogany ..... | " D-4   |
| Moss Green .....     | " 819   |
| Walnut .....         | ED-25   |

### Oil Group

For Oak, Pine, Gum, Birch

This group possesses the high quality of all Marietta products. These stains are non-grain-raising and are extremely practical of application. They are made of the best procurable dyestuffs, dissolved in a liquid which penetrates the wood thoroughly and dries hard over night.

They fit well into a field when economy of original cost is to be considered and where the finished surface will not be exposed to unusual wear and abuse.

### Application of Oil Stains

Marietta Oil Stains should be applied full strength and with a full brush.

Unlike other oil stains, it is unnecessary to wipe the surface after staining.

Allow to dry over night, when the finishing coat, which should consist of one wash coat of shellac and two coats of Varnitro, should be applied as directed for the Maco line.

### Colors and Numbers

|                         |            |
|-------------------------|------------|
| Silver Gray .....       | No. 4610-A |
| Golden Oak .....        | " 425      |
| Mission Brown .....     | " 2651     |
| Circassian Walnut ..... | " 4987     |

### Special Acid Group

For Oak

This small group of four acid stains has been popular for a number of years and has been used on some of America's most prominent buildings and residences.

### Directions for Application

They should be applied to any surface exactly as is recommended for the new series of acid stains given above, and coated with Marietta American Lacquer.

Both the grays should then be filled with Marietta Albatine Paste and the Italian Walnut should be filled with the same paste tinted lightly with brown, or our No. 6487 Paste. This material should be thinned with benzine or naphtha to the consistency of a thin paint and brushed over the America Lacquer after the latter is thoroughly dry.

Wipe off the filler at once across the grain and clean up the surface with a fresh cloth.

The filler will dry in about twelve hours, after which the surface should be sanded lightly. Both of the gray effects should then be given one wash coat of shellac which, when dry, should be finished with one coat Marietta French Lacquer. The Italian Walnut should, after filling, be given one coat of Marietta American Lacquer and when this is thoroughly dry should be coated with French Lacquer which gives a durable velvety sheen to all of these Acid Stain Finishes.

The Fumed Oak effect requires no filling and is finished exactly like the Grays with the exception of the filling operation.

### Colors and Numbers

|                      |          |
|----------------------|----------|
| Victor Gray .....    | No. 4713 |
| Scotch Gray .....    | " 4755   |
| Fumed Oak .....      | " 2504   |
| Italian Walnut ..... | EB-21    |

## VARNITRO FLUID FLOORING

A General Utility Product for Floors and Trim

Tested and Approved by the National Committee of Professional Painters and a Tested Product of

THE HOTEL MANAGEMENT Service Bureau

**T**HIS product represents the highest development in the modern manufacture of varnishes and lacquers. While Varnitro contains a high percentage of cellulose, it is so constructed that unusual ease of working is obtained. In fact, Varnitro works easier than the average shellac.

Varnitro Fluid Flooring is made not only in the Clear in both Gloss and Dull, but also in pigmented form in eight colors and black and white. The product in colors is enjoying national usage as a high grade general utility floor covering in hotels, hospitals, theaters and private homes.

Varnitro Fluid Flooring can be applied without difficulty to the largest surfaces and offers the maximum of resistance to wear.

Varnitro, before being marketed, was put through a series of practical tests under varying conditions by a national committee of one hundred leading master painters of the United States. One of these committeemen very aptly wrote us "Varnitro is the product the world has been waiting for."

A floor coated with Varnitro Fluid Flooring can be walked on within two hours. Amateurs find Varnitro practical for use on furniture.

Send for folder describing National Committee's Report

New Finishing Specifications Now Ready for Douglas Fir, California Redwood, Southern Pine and Oak



For further details and literature, write to:

**THE MARIETTA PAINT & COLOR CO., Marietta, Ohio**



# JOHNSON'S INTERIOR FINISHES

Manufactured by  
**S. C. JOHNSON & SON**  
*"The Wood Finishing Authorities"*  
**Racine Wisconsin**

## BRANCH HOUSES

ATLANTA  
16 West Peachtree Pl.  
BOSTON  
852 Summer St.  
DALLAS  
1645 Superior Ave.  
CLEVELAND  
2900 Main St.  
DENVER  
1846 Arapahoe St.

DETROIT  
5432 Grand River Ave.  
KANSAS CITY  
2433 McGee Trafficway  
LOS ANGELES  
1151 Santee St.  
LOUISVILLE  
115 South 6th St.  
MILWAUKEE  
936 Third St.

NEW ORLEANS  
500-506 Magazine St.  
NEW YORK  
270-276 Lafayette St.  
OMAHA  
1407 Harney St.  
PHILADELPHIA  
410-412 Commerce St.  
PITTSBURGH  
926 Duquesne Way

SAN FRANCISCO  
1250 Folsom St.  
ST. LOUIS  
2116 Locust St.  
ST. PAUL  
1930 St. Anthony Ave.  
SEATTLE  
314 Bell St.

## Specializing in Interior Finishes



Johnson's Liquid Wax for polishing and preserving floors of every description, furniture and woodwork has come into general use all over the world.

The New Johnson De Luxe Electric Polisher is the latest development in floor finishing equipment. Its wide polishing brush, powerful motor and sturdy construction enable you to wax-polish large floor surfaces with a minimum of time and effort.

With Johnson's Polishing Wax and the New De Luxe Polisher floors of every type can be finished to a degree of perfection that will reflect superior workmanship throughout the building.

An organization, a department or an individual specializes in some one thing and the world profits by a better product or service.

For almost 50 years this company has specialized in the development and perfection of superior quality Interior Finishes.

Today with factories in the United States, Canada, England and Australia the Johnson organization is of international scope. Its raw materials are gathered from the four corners of the earth.

This extensive organization is the development of an unceasing effort to bring you the utmost of quality in the Interior Finishes that are delivered to you.

The Johnson laboratories are constantly at work to give you the benefit of every forward step and modern improvement in the manufacture of Interior Finishes.

Wherever floors, woodwork, walls and furniture are finished or redecorated, there you find Johnson's Finishes. Master craftsmen and their thousands of customers have come to recognize the Johnson name as synonymous with quality.

When used according to the specifications on the work for which each is intended and is built, the superior qualities of Johnson Products always stand out. With them you are assured a 100 per cent job.



For further details and literature, write to:

**S. C. JOHNSON & SON, Dept. H.B.C., Racine, Wis.**



## JOHNSON'S INTERIOR FINISHES—Continued



### JOHNSON'S LIQUID WAX GLAZE

THE latest Johnson development—Johnson's Liquid Wax Glaze is based on the old Egyptian art of carrying colors in wax. This new process places in the hands of the modern painter and decorator a medium far in advance of any other, for artistic treatment of textured and sand finished walls.

Multi-color effects in great variety and combination—tints, shades and tones may be had. The beauty and non-fading qualities of wax paintings unearthed in ancient tombs have been modernized and made commercially useful in Johnson's Liquid Wax Glaze.

*Note—The painting to the left, in many colors, was taken from an Egyptian tomb dating back about 3000 years. The colors used are remarkable for one feature. They are as fresh and vivid today as though laid on yesterday.*

### A FINISH FOR EVERY INTERIOR NEED

The Johnson slogan "The Wood Finishing Authorities" is based on the production of a complete line of Interior Finishes.

The exact requirements of every kind of wood interior wall has been carefully studied and analyzed in exhaustive laboratory tests.

Each Johnson product is built to do some one job as nearly perfect as money and human ingenuity can accomplish that purpose.

Every ingredient used in Johnson Finishes has its place because it fits that particular job.

In the Johnson Line of Interior Finishes below is listed a product for every interior decorating need. This line is the development of nearly half a century of specialization. The Johnson name is your assurance of highest quality, and a definiteness of purpose for every item that carries the name.

### JOHNSON PRODUCTS, INCLUDING:

Perfectone Undercoat  
Perfectone Enamel  
Glo-Coat Enamel  
Wood Dyes  
(Penetrating Oil Stains  
and Spirit Stains)

Paste Wood Filler  
Permacote (Wall  
Finish)  
Flat Varnish  
Floor Varnish  
Interior Trim Varnish

Prepared Polishing  
Wax  
(Paste and Liquid)  
Electric Floor Polisher  
Liquid Wax Glaze  
Sani-Spar Varnish

Floor and Finishing  
Varnish  
Sani-Spar Varnish  
Stain  
Electric Solvo  
(Varnish Remover)

### WHOLESALE PRICES TO PAINTERS AND DECORATORS

Keeping in mind the quantities of Interior Finishes used by building and decorating contractors we have arranged to extend them the benefit of our wholesale price list. Quantity prices on the entire Johnson Line of high quality Interior Finishes.

Specifications, methods of application and complete information will be sent on request. You or your painting contractor will receive the wholesale price list and all other data upon application. Write for our Free book, "The Proper Treatment for Floors, Woodwork and Furniture."



For further details and  
literature, write to:

S. C. JOHNSON & SON, Dept. H.B.C., Racine, Wis.



# Paints — Varnishes — Muresco

Manufactured by

**BENJAMIN MOORE & CO.**

511 Canal St., New York City

Products bearing the name Benjamin Moore & Co., have long been considered excellent standards of quality. For 43 years the users of these products have bought with the confidence of satisfactory results, quality unsurpassed, and reasonable prices. This Line of Paints and Varnishes covers every practical and many special needs. Every product, through its careful manufacture may be considered the best for its particular purpose.

## For Exterior Painting

Moore's House Paint is a Pure Linseed Oil product for use on houses, barns, fences and other surfaces of wood, brick, and metal.

It is generally agreed among paint users that a product properly balanced with Lead, Zinc, Reinforcing Pigment, Pure Linseed Oil, and good Driers, gives the finest degree of satisfaction. Moore's House Paint is so made.

For exposed surfaces where abuse and wear is severe, Moore's Porch and Deck Paint is more than satisfactory. It is ideal for Boat Decks, Porches and Steps, and will give excellent service.

## For Interior Painting

Soft, lusterless flat finishes for walls and ceilings are in vogue. Sani-Flat is a remarkable flat oil paint manufactured in twenty well-chosen colors. It is easy to apply, thoroly reliable, and reasonable in price. Surfaces painted with Sani-Flat are washable.

Dulamel is a wall paint which has also proved popular and satisfactory for furniture and trim decoration. It gives an eggshell finish, beautiful in appearance and readily washed. Dulamel is used extensively in Kitchens, Baths, and Laundries.

## For Murescoing

Water paints are often desired for wall and particularly ceiling decoration. Muresco enjoys the largest sale of water paints and is universally recognized by both painter and amateur as the easiest to apply and the most satisfactory wall finish. The preparation of Muresco, by mixing with Boiling Water, assures the adhesion of the material to the surface which is painted. Muresco is superior to kalsomine.

## For Sizing

In painting new walls or old porous surfaces precaution should be taken to seal them against the injurious action of Lime, Acid, Water, and Alkaline Salts. These foreign elements often mar the beauty of the painted wall. Impervo Surfacers will overcome these difficulties and will present an impervious barrier to the injurious elements.

## For Varnishing

Varnish satisfaction is attained when specific products are used to meet each requirement.

Impervo Varnishes are varnishes made with a purpose. For each particular Interior or Exterior Surface there is only one entirely satisfactory product. Impervo Varnishes are made with this idea in mind and will meet the most exacting demands.

The Line of Varnishes manufactured by Benjamin Moore & Co., comprises products for Cabinet, Coach, Interior Finish, Floor and Linoleum, Rubbing, and Spar and Marine work.

## For Enameling

Mooramel is of an enduring quality in the face of the most severe weather conditions and climatic change. It is a long oil product manufactured in High Gloss White and Eggshell, and 3 High Gloss Colors: Blue, Gray, and Ivory. On Interior and Exterior, when properly applied Mooramel gives that decorative porcelain-like finish that is so desirable. New surfaces to be enameled, are prepared by sanding, and coating in with Moore's White Enamel Underbody.

## For Miscellaneous Work

For every paint or varnish need Benjamin Moore & Co., can supply a product unsurpassed in respect to quality, price, and satisfaction resulting.

In addition to the above named products, Cement and Concrete Paints, Shingle Stains, Special Greens, and Tile-Like Enamel and Color Varnish are well-known, widely used, and worth your consideration.

## Caution

The cost of labor is such these days that every precaution should be taken to attain satisfaction with the least amount of re-touching and re-painting. It must be remembered that the condition of surfaces is not constant. Many surfaces because of long disregard require special preparation to prevent peeling, cracking, and staining.



For further details and literature, write to:

**BENJAMIN MOORE & CO.**

511 Canal St.  
New York City



# "MORGANITE QUALITY"

## PAINTS, VARNISHES, LACQUERS

### BRANCHES

5 N. Liberty St., Baltimore, Md.  
711 Main St., Buffalo, N. Y.  
693 Gratiot Ave., Detroit, Mich.  
213 E. Washington St., Ft. Wayne, Ind.  
703 E. Breckenridge, Louisville, Ky.

Manufactured by

**THE MORGAN COMPANY**

Peoria, Illinois



Trade Mark

### BRANCHES

312 Second Ave., N., Nashville, Tenn.  
91 Warren St., New York, N. Y.  
328 S. Adams, Peoria, Ill.  
3556 Olive St., St. Louis, Mo.  
1001 Fairground, Vincennes, Ind.



### MORCO

The Original Flat Varnish manufactured by a process known only to its originators. Morco is the one flat varnish that is flat in the can, flat on the surface and remains flat. Morco never becomes glossy in spots. It is water-

proof and weather-proof. It can be used on woodwork, furniture or floors.

Specifications: *For New Wood*—1. Stain (if desired). 2. Silux Paste Filler. 3. Shellac (white or orange. To be sanded when dry). 4. Morco Undercoat (not to be sanded). 5. Morco Flat Varnish.

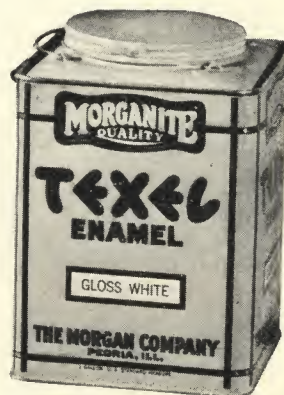
*For Refinishing*—1. Morco Undercoat (not to be sanded). 2. Morco Flat Varnish.

Morco can be applied in half the time of a gloss varnish and covers one-third more surface. It contains no wax and produces a finish that only an expert can distinguish from a hand-rubbed job.



### SURFSPAR

"The Varnish Invulnerable." The varnish that is unqualifiedly guaranteed for either exterior or interior use, on land on water, or in air. It is entirely waterproof, never turns white and is unaffected by exposure to the elements. Full in body and rich in lustre, it imparts a beautiful and permanent finish to any surface.



### TEXEL

The Excellent Enamel. There is probably no item in the entire field of finishing products which makes so heavy a demand upon the experience and knowledge of the maker as an enamel of quality. It is that experience and knowledge which has

given to Texel Enamel those characteristics so much desired by the discriminating user.

*For Exterior Use*—Texel Enamel applied over Texel Undercoat produces a porcelain-like finish that defies the elements and that remains permanent in color.

*For Interior Use*—Texel Enamel is the ideal finish for woodwork or furniture and its unusual covering capacity and ease of application render it highly economical. Its slow-setting makes possible the retouching of spots that have been missed and the removal of bristles that have come from the brush. Every can of Texel Enamel is sealed at the factory. The unbroken seal is a guarantee of the highest possible quality.

Made in Gloss or Eggshell finish—white or ivory colors.

### THE YELLOW CAN

Since 1866, America's most beautiful package has been symbolic of high quality to the architectural, building and decorating trade. In the line is a product for every purpose and every product is designed to meet the most exacting requirements.



For further details and literature write to:

**THE MORGAN COMPANY, Peoria, Ill.**



# Parker, Preston Permanent Paint Products

Made by  
**PARKER, PRESTON & CO., Inc.**  
Norwich, Connecticut

## FLOOR COATING

## BRICK STAINS

## SHINGLE STAINS

This company manufactures a number of products that every building contractor should know about. If you are not familiar with Parker, Preston Permanent Paint Products send us your name and address and we will mail you literature covering:

Parker's Art in Shingle Stains (Waterproof and Odorless)

Parker's (Original) Asbestos Shingle Coating

Parker's Flat Brick Stains

Parker's Adamant Floor and Deck Coating

### Parker's Art in Shingle Stains (Waterproof and Odorless)

The two things you desire in a shingled home—beauty and durability—can be best obtained through the use of Parker's Art in Shingle Stains, a scientific blend of high grade pigments with a penetrating oil base that thoroughly waterproofs the shingles to which it is applied.

### No Creosote

Positively no creosote is used in the manufacture of Parker's Art in Shingle Stains, hence they are free from unpleasant odor, may be applied without injury to hands or clothing, and will not burn and discolor painted woodwork as is usual with stains using a creosote base. We positively guarantee Parker's Art in Shingle Stains against running. They stay where you put them—on the shingles—and we will cheerfully and promptly make good any reasonable claim for damage done to painted woodwork due to stain washing out. This is a safe promise to make because we know Parker's Art in Shingle Stains will not run if applied on dry shingles.

### Quick Drying

The penetrating oil base used in the manufacture of Parker's Art in Shingle Stains loses no time in soaking into the shingles. In an hour after the stain is applied, the shingles are dry to the touch and will shed water like a duck's back. The finely ground pigments incorporated with the



oil base also penetrate the shingles to a considerable depth instead of forming merely a surface film as in the case of paint. The range of colors provided in Parker's Art in Shingle Stains enables you to select color schemes exactly suited to your house and once applied you will have the satisfaction of knowing that you have the most artistic and durable finish obtainable.

### Write for Samples and Prices

Our little packet of miniature shingles will interest you. Sixteen colors are included in these samples. Write for them today and when the postman delivers them to you, note how deeply the stain has penetrated the shingles and how brilliant are the colors. Soak them in water and expose them to the sun as often as you like and demonstrate to your own satisfaction the durability of Parker's Art in Shingle Stains.

### Parker's (Original) Asbestos Shingle Coating

A durable color treatment for asbestos shingles producing rich and artistic color effects. Can be used also on galvanized iron and wooden shingles that are too old and weather-worn to be successfully stained. This is the original Asbestos Shingle Coating, the worth of which has been proven by years of use. Full particulars and Color Chart on request.

### Parker's Flat Brick Stains

A waterproof stain that dries on brick with a flat finish—not glossy like paint. Preserves the natural appearance and texture of the brick and costs only about half as much as a paint job. Enables old brick work to be matched to new when remodeling or making additions to an old house. Made in four standard shades—Light Red, Dark Red, Milwaukee and Snow White. Special colors to match any shade of brick can be made to order.

## FLOOR COATING



### Parker's Adamant Floor and Deck Coating

Stands in a class by itself as a high grade treatment for wood or cement floors and canvas roofs or decks. Made from materials that provide extreme adhesiveness, toughness and elasticity—will not crack or scale. Dries with a semi-gloss and wears like iron. Write for Color Chart showing 14 standard shades.



For further details and literature, write to:

**PARKER, PRESTON & CO., Inc., Norwich, Conn.**



# MEDUSA CEMENT PAINT

Manufactured by

**THE SANDUSKY CEMENT COMPANY**

The Engineers' Bldg., Cleveland, Ohio

## Products

Medusa Cement Paint was developed over a period of years in the laboratories of The Sandusky Cement Company. It was produced by cement chemists with a working background of many years in the Portland Cement industry.

Page (39) gives a complete list of Medusa Products for Concrete. Turn to this page for information on Medusa White Portland Cement.

Medusa Cement Paint is patented and "There's none exactly like it." It is the original cement paint and no exaggerated claims are made for its performance.

## Medusa Cement Paint

It is a dry powder, which is mixed with water. Medusa Cement Paint is sold by the pound in 10 pound pails and 50 pound buckets. Ten pounds of Medusa Cement Paint is equivalent to one gallon of oil paint.

Medusa Cement Paint is to be used only on masonry surfaces not vitrified or glazed. Stone, Concrete, Brick and Tile are the usual materials covered with Medusa Cement Paint.

## Composition, Colors

Medusa Cement Paint contains no oil, glue, casein, nor similar ingredients as experience proves that such paints will not unite *permanently* with masonry surfaces.

Medusa Cement Paint comes in white and five colors. The colors are Cream, Pearl Gray, Stone Gray, Green and Red. These colors are standardized and special colors will not be mixed to order. All of these shades can be lightened by the use of varying amounts of Medusa White Cement Paint.

## Applying

When applied with a brush or sprayer according to directions, Medusa Cement Paint



becomes literally a part of the surface it covers, and will not dust, powder, flake, chalk or blister. When thoroughly set it may be washed with strong soap and water without injury.

Two coats of Medusa Cement Paint applied to a masonry surface will give a dense, hard coating that is valuable on basement interiors, garage interiors and

other places about the home. It is also excellent for *renewing* exterior stucco surfaces.

## Interior Work

All surfaces to be painted with Medusa Cement Paint must be thoroughly wet down with a hose before painting. This is true of interior, as well as exterior work.

It is used extensively in the painting of interior basement walls. The lighting of basements is made easier by the use of Medusa Cement Paint below grade. It can be used above grade when the construction is of masonry. Medusa Cement Paint is dampproof and will keep moisture from striking through.

## Exterior Work

All Portland Cement stucco work can be renewed and refreshed with a permanent covering of Medusa Cement Paint. If you wish to change the color of your stucco home, garage or other building, give it two coats of Medusa Cement Paint.

## Further Information

Full directions for the use of Medusa Cement Paint, along with a color chart and sample, will be sent to any one interested in this product.

Remember this about Medusa Cement Paint. It is the original Cement Paint made from a base of Portland Cement. It is *patented*. No one can sell you exactly the same product. We are the sole manufacturers and claims made here will *not* apply to other paints.



For further details and literature write to:

**THE SANDUSKY CEMENT COMPANY**

THE ENGINEERS' BLDG.  
CLEVELAND, OHIO



# Paints—Varnishes—Drying Oils—Enamels—Lacquers

Manufactured by

James B. Sipe & Company, Pittsburgh, Pa.

*Scientific Paint Makers for nearly half a century.*

## Branches

Baltimore.....2807 Santa Fe Ave.  
Boston.....30 Farnsworth St.  
Chicago.....125 W. 46th Place  
Cincinnati.....44 Vine Street

Detroit.....Fort & Tenth Sts.  
Los Angeles.....820 McGarry Street  
Minneapolis.....10 Old Colony Bldg.  
New York.....165 Broadway

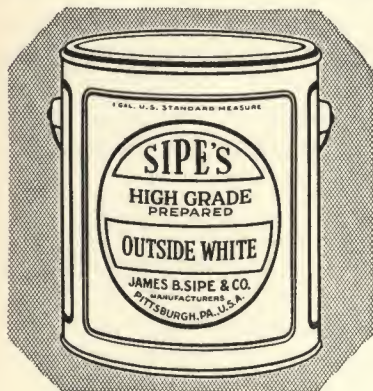
Philadelphia.....The Estey Bldg.  
San Francisco.....77 O'Farrell St.  
St. Louis.....502 Ambassador Bldg.  
Toronto.....17 River Street

Paint is applied for two main reasons. The first is to protect; the second is to beautify. But whether for one reason or the other there is a third object generally present, and that is to protect or to beautify the surface in the most economical manner.

Now, it does not follow that the paint which protects the most, beautifies the most, or the one which beautifies the most, protects the most, so that in selecting a paint for either purpose, the best course to

pursue is to select paint manufactured for each specific purpose by an up-to-date, reputable manufacturer.

James B. Sipe & Company have devoted themselves for nearly half a century to the scientific manufacture of paints and paint specialties for specific purposes, for use of the greatest railroads and industrial concerns, as well as the most prominent master painters of the United States and other countries,—products which have been largely sold by the best wholesale and retail dealers of the country.



## Sipe's High Grade Prepared Paint for Exterior

Sipe's High Grade Prepared Paints for Exterior are manufactured in accordance with formulas and methods which we have developed as result of an experience of many years in the manufacture of paints for special purposes.

The pigment is pure lead, and zinc; the vehicle is linseed oil, reinforced with Sipe's Japan oil which causes the paint to level up to an unusual degree, thus aiding the hiding and covering characteristics and prolonging the life and wearing qualities of the paint. It is furnished in 32 colors. Under normal conditions it will cover approximately 750 square feet one coat work.



## Sipe's Luxury Interior Flat Finish

Sipe's Luxury Interior Flat Finish is an unusually heavy bodied flat paint for interior walls and trim. It will be found that it is practically non-setting and non-caking, and may be mixed with unusual ease. It will be found superior to the usual flat white paints on the market in hiding and brushing and other working qualities. It produces a beautiful sanitary finish, which may be washed. It is furnished in 16 popular tints, and should cover from 150 to 200 square feet to the gallon.

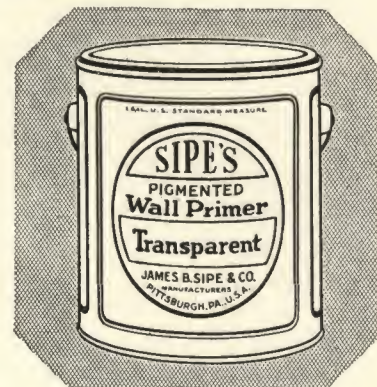


## Sipe's Luxury Enamel Gloss White

Sipe's Luxury Enamel Gloss White is a full bodied pure white, long oil enamel, which flows out readily and levels up in such a way as to eliminate brush marks to an unusual degree. For interior and exterior use on woodwork, walls, furniture, etc. It is furnished also in Gloss Ivory, which may very easily be tinted with Sipe's Master Painters Oil Colors to any desired tint.

## Sipe's Pigmented Wall Primer

There is probably nothing in the whole realm of the painters' craft, which has caused more trouble than the priming of new plaster walls, so that succeeding coats of flat finish may be applied without danger of the finish peeling off, largely due to alkalis in the plaster. Sipe's Pigmented Wall Primer is scientifically designed to overcome this difficulty, and to seal suction spots, fire and hair cracks, making it possible to cover walls with one coat of Sipe's Luxury Interior Flat Finish, which, under other circumstances, might require a coat of primer and two coats of paint.



For further details and literature write to James B. Sipe & Company, Chamber of Commerce Building, Pittsburgh, Pa.





The Sipe's Varnish Plant is one of the most modern scientific Varnish Plants in the country, and Sipe's Varnishes are made under the direction of Varnish experts who have devoted their lives to making varnishes. The selection of all material entering into Sipe's Varnishes is subject to laboratory inspection and examination, and every reasonable scientific precaution known to the varnish trade is taken to insure a uniform output of the highest grade.

Sipe's Varnishes are made for every specific purpose. Sipe's Varnish products comprise Floor Varnish, Interior Finishing Varnish, Flat Finishing, Pale Rubbing Varnish, Flat Floor Varnish, Transparent Wood Filler, Oil Stains, Penetrating Stains, Acid Stains, and Paste Fillers. We illustrate simply Sipe's Spar Varnish which is a high grade varnish producing an unusually hard film for exterior work generally, for use especially on front doors, vestibules, porch ceilings, store fronts, also all surfaces exposed to salt air and other extreme exposure. It will not turn white under water, and resists acids and alkalis to an unusual degree.



### Sipe's Shingle Stains

There are three requirements in Single Stains:—

1. They must protect and preserve the wood.
2. They must produce soft rich shades for beautifying the shingles.
3. They must at the same time be made in such a way as to hold up and protect the color.

Sipe's Shingle Stains have been developed with all of these points in mind, and we believe that they will be found to meet all of these conditions to an unusual degree. They are furnished in ten beautiful shades and under ordinary conditions one gallon should be sufficient to dip from 450 to 500 shingles, one coat, or to cover from 125 to 150 square feet, one brush coat, or 75 square feet two brush coats.



### Sipe's Concrete Floor Enamel

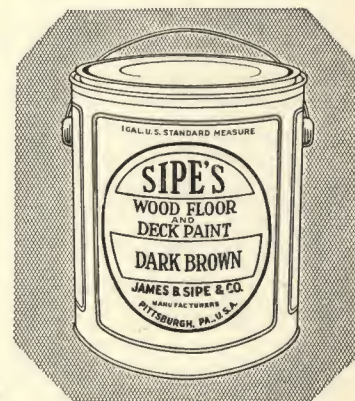
With the very rapid increase in the use of Concrete in building, it has become necessary to furnish a paint which is specifically designed for concrete, and it will be found, we believe, that Sipe's Concrete Floor Enamel will meet all of the necessary requirements for application to concrete to an unusual degree. It has good penetrating qualities, so that it will be absorbed to a considerable extent by the concrete, causing particles to adhere, thus preventing dusting, at the same time drying with a high lustre and forming a tough waterproof elastic surface, so as to stand wear and tear.

Sipe's concrete floor enamel is furnished in six beautiful colors.

### Sipe's Wood Floor and Deck Paint

Paints for wood floors must have proper penetration so as to properly adhere to the wood. They must also be able to withstand exposure to all of the elements, and in addition must be tough and elastic, so as to withstand scratching from wear and tear, and the scuffing of footsteps, scraping of chairs and other furniture, must withstand scrubbing, retain their gloss and decorative qualities.

We believe that Sipe's Wood Floor and Deck Paint will meet all of these requirements to an unusual degree. It is furnished in 8 different shades.



### Sipe's Varnish Stains

Sipe's Varnish Stain is just what the name implies, a varnish and stain combined, enabling one to stain and varnish in one application. Sipe's Varnish Stains are furnished in six attractive colors, in addition to Ground color, and may be used on new or old furniture, floors, standing trim, or other woodwork.

Sipe's Varnish Stains flow easily, are easily applied, give a high, durable lustre, which may be washed, are not easily marred, will not show white if scratched, and will hold their gloss indefinitely.



### Sipe's Butalac Brushing Lacquer

Sipe's Butalac, the Brushing Lacquer Beautiful, may be called the lacquer of a thousand uses.

It is furnished in 20 colors of unusual brilliance and permanence, which may be applied to furniture, floors, interior woodwork, tables, chairs, automobiles, toys, etc. They set up in 10 to 15 minutes and dry within 30 minutes after being applied.

Sipe's Butalac Brushing Lacquers do not soften under heat. The colors have extreme brilliance and produce beautiful finishes having a soft, unusual gloss.

For further details and literature write to James B. Sipe & Company, Chamber of Commerce Building, Pittsburgh, Pa.



# Waterproofings, Paints, Varnishes, Enamels and Lacquers

Manufactured by

**THE TRUSCON LABORATORIES**  
1650 Caniff Ave., Detroit, Mich.

BRANCH OFFICES IN PRINCIPAL CITIES

ATLANTA, GA.  
BALTIMORE, MD.  
BOSTON, MASS.  
CHICAGO, ILL.  
CLEVELAND, OHIO  
COLUMBUS, OHIO

DALLAS, TEX.  
EL PASO, TEX.  
GRAND RAPIDS, MICH.  
KANSAS CITY, MO.  
LOS ANGELES, CAL.  
MILWAUKEE, WIS.



TRADE-MARK

MINNEAPOLIS, MINN.  
MONTREAL, QUE.  
NEW YORK, N. Y.  
NORFOLK, VA.  
OMAHA, NEB.  
PHILADELPHIA, PA.

PITTSBURGH, PA.  
PORTLAND, ORE.  
ST. LOUIS, MO.  
SAN FRANCISCO, CAL.  
SYRACUSE, N. Y.  
TORONTO, ONT.

## The Truscon Idea

The Truscon Laboratories is an organization of specialists who have been devoted more than twenty years to the creation and manufacture of waterproofings and paint coatings.

## Products

A few of the more widely known Truscon products that have been developed as the result of this extensive research work and specialization, are:

**TRUSCON WATERPROOFING PASTE (Concentrated)**  
An Integral Waterproofing.

**TRUSCON STONETEX**  
Concrete and Masonry Coating.

**TRUSCON ASEPTICOTE**  
Washable Wall Coating.

**TRUSCON ALKABAR**  
Wall Sealer.

**TRUSCON WATERPROOF HOUSE PAINT**

**TRUSCON WATERPROOF VARNISH (Finest)**  
Interior and Exterior Varnish.

**TRUSCON SHINGLE STAIN**  
Creosote Stain.

**TRUSCON BLUE RIBBON WHITE**  
White Enamel.

**TRUSCON FLOOR ENAMEL**  
For Concrete Floors.

Truscon StoneTex is a specialized masonry coating especially adapted for application to brick, concrete, stucco and masonry surfaces.

StoneTex dries to a tough waterproof film which resists the action of alkali that so frequently causes the complete failure of ordinary paint coatings. It affords protection against cracking and checking of concrete and stucco structures, by eliminating the absorption of moisture. In addition to these desirable qualities of protection StoneTex combines the utmost in decorative value.

StoneTex is furnished in ten beautiful shades (also White) that allow of pleasing color combination and its finish when dry closely resembles the appearance of brick and masonry. It, therefore, keeps such surfaces looking new for the longest possible time.

Truscon Waterproofing Paste Concentrated waterproofs cement, stucco and mortar by coating the tiny pores of these materials with a highly water-repellent material.

The use of Truscon Waterproofing Paste results in very definite results—it not only assures water-tight foundations, floors, walls, etc., but also eliminates considerable labor by lubricating the mix and, therefore, allowing of quicker and easier placing and troweling.

When used in stucco cement, Truscon Waterproofing Paste eliminates the possibility of cracking and checking by preventing the absorption of moisture. It also prevents the mottled appearance so often noted when stucco is placed over tile.

The use of Truscon Waterproofing Paste merely requires its addition to the gauging water.

Truscon Waterproof House Paint (**Formula Quality**) is made along the lines which our waterproofing experience has taught us produces a paint coating having maximum resistance to wear and weathering. There is no finer combination of pigment and vehicle to be found in any paint than in Truscon Waterproof House Paint. And in addition it has that which gives it extra wear-resistance—Waterproofness. "Since Waterproof is Weatherproof" Truscon Waterproof House Paint will wear longer and better than can logically be expected from ordinary house paints.

Quantity required—**Priming Coat** on new work may be figured at the rate of about 500 to 600 sq. ft. to the gallon.

**Second and third coats** may be figured at the rate of about 350 sq. ft. to the gallon for the two coats. **For trim** estimate about one-eighth to one-fifth of the amount of paint needed for the body color. This amount for trim, depends, of course, upon the style of architecture. **For blinds** estimate one gallon of paint to cover 12 pair.

Truscon Asepticote, the Washable Wall Coating, is supplied in sixteen beautiful shades that may be combined to arrive at any desired color combination.

Truscon Asepticote dries to a subdued lustre that is neither an enamel or flat finish, but combines the desirable qualities of both.

Truscon Asepticote is similar to StoneTex and Truscon Waterproof House Paint, in that it is made of specially treated waterproof oils—this composition results in an unusually durable surface that will retain its decorative finish for the longest possible time, and that will withstand the abuse of repeated washings or scrubbing with strong cleansing compounds.

Grease spots, ink stains, finger marks and even match scratches may be readily removed from an Asepticote painted surface without in any way damaging its highly decorative appearance.

On old painted walls, one coat of Asepticote is usually sufficient to secure the desired result—on new plaster, the first coat should be Truscon Alkabar to which Asepticote of the color desired for the finish coat has been added in the proportion of one quart of Asepticote to the gallon of Alkabar.

Alkabar is a sealing or priming medium in liquid form that thoroughly uniforms the surface and eliminates flat spots appearing in the finish coat due to suction and burning through of free lime in the plaster.

Truscon Waterproof Varnish Finest is one of the outstanding products of the Truscon line of protective and decorative coatings.

The unusual ability of Truscon Waterproof Varnish Finest to withstand the punishment of exposure to steam and freezing in ice, as demonstrated by Truscon throughout the country, has won for this product nation-wide recognition as an ideal varnish for interior and exterior application.

Despite the outstanding quality of Truscon Waterproof Varnish Finest, it costs no more than the average good grade of floor and finishing varnishes, and when its durability is taken into consideration, it will be very evident that the use of Truscon Waterproof Varnish Finest will result in considerable economy by eliminating the necessity of frequent refinishing.



For further details and literature, write to:

**THE TRUSCON LABORATORIES**

1650 Caniff Ave.  
Detroit, Mich.



# CELOTEX INSULATING LUMBER

## FOR ATTRACTIVE INTERIORS

Manufactured by  
THE CELOTEX COMPANY

645 N. Michigan Ave., Chicago, Ill.

Mills: New Orleans, La.

Branch Sales Offices in many principal cities  
(See Telephone Books for Addresses)

All Lumber Dealers Can Supply Celotex

**T**HE pleasing texture of Celotex and its natural golden-tan color make it admirably adapted to modern styles of interior decoration. When Celotex is stained, painted or stenciled, it produces many beautiful effects at low cost. And in addition to providing this unusual beauty at low cost, Celotex adds the advantages of insulation and sound deadening.

### Material

Interior or exterior finish shall be Celotex Standard Building Board.

**Framing.** The studs and joists shall be framed to conform to the design of board spacing or paneling required, spacing studs and joists not more than 16" on centers and using extra studs, joists and headers if necessary. For the most substantial construction headers shall be provided back of chair rail and all other heavy molding. For interior finish a true, even framing surface is imperative for satisfactory results; therefore, it is necessary to use selected straight framing members of uniform thickness. The superior results obtained justify this care.

### Application

If the joints are to be covered with molding, the Celotex shall be moistened and applied as described in specifications entitled "standard application," (for these specifications refer to "Celotex Insulating Lumber"; see index under "Insulation"), except that for all exposed nailing, finishing nails 1 1/4" long shall be used, spaced 3" apart and driven at an angle.

If the joints are not covered, do not moisten Celotex, but place boards singly around room for at least 24 hours, without heat and with windows open, and then nail in place, using 1 1/4" finishing nails throughout, spaced 3" apart and driven at an angle.

For certain schemes of interior decoration, the Celotex may be beveled to produce a broad "V" groove at each joint. The beveling may be done by means of coarse sandpaper wrapped around a block, or by cutting with a sharp knife or by sawing.

It is a good plan to apply the Celotex on the interior just before the wood trim is applied.

### Painting and Decorating

The Celotex on the interior may be left in its natural color, or it may be stained or painted. Exterior surfaces should be painted before applying the molding or panel strips over joints. For painting instructions, see following specifications:

#### Sizing, Painting, Staining or Tinting Celotex

**Sizing and Priming.** To secure maximum coverage, when oil paints are used, the surface of Celotex must be sized or primed.

When water paints or water stains are used, no sizing or priming is necessary.

**Glue Sizing.** Dissolve 1 1/2 pounds of shell or chip glue in one gallon of boiling water and apply warm. Use no size that has been mixed over eight hours. Apply swiftly and evenly.

**Priming.** Instead of sizing, a priming coat containing 1/3 turpentine, 1/3 boiled linseed oil and 1/3 paint, or a priming coat consisting of a thick paint to which a dryer has been added, may be used. This should be brushed on swiftly and evenly.

**Painting.** Over a sized or primed surface any paint may be used or painting effect produced.

**NOTE:** The above specifications apply equally to interior or exterior painting so far as the preparation of the walls is concerned.

**Staining.** Oil stain, benzol, alcohol, acid or any other penetrating stains may be applied over glue sizes in the usual manner.

**Water Stains.** All commercial stains used for dyeing wood may be used over Celotex without sizing. These are mixed in hot water and applied cold in accordance with Manufacturer's Specifications. The stains should be applied swiftly and evenly with a large brush.

**Paste Water Stains.** Paste water stains are dry colors which are mixed with paste specially prepared by manufacturers and may be applied without the use of sizes, as the paste contains the necessary glue. They are mixed in accordance with Manufacturer's Specifications. Any color or tint may be produced. Due to the slow drying qualities of this material other color tints may be mottled into them, producing tiffany or antique effects in one operation. Any stencil effect can be applied on this background in fresco or japan colors.

**Kalsomining.** Kalsomine tints may be applied over either sized or unsized surfaces. When sizing is not used, add small amount of glue to mixture. Mix and apply in accordance with Manufacturer's Specifications. Any kalsomine surface may be stenciled in fresco or japan colors.

**NOTE:** There are many other methods for producing various decorative effects over Celotex. These surface treatments consist of the following:

- Papering on Celotex.
- Applying wall canvas and similar coverings on Celotex.
- Applying various plastic paints on Celotex.
- Beveling the joints and surface of Celotex so as to produce tile effects in Ashlar design.
- Stenciling over Celotex with various stains and paints.

For information on these treatments, The Celotex Company has developed Technical Notes and special data which will be furnished upon request, by writing to The Celotex Company, 645 North Michigan Avenue, Chicago, Ill.



**INTERIOR FINISH—**You can use Celotex as interior finish to obtain very attractive and beautiful effects. Its pleasing texture makes an attractive wall either in its natural soft tan color or decorated.

**CELOTEX**  
INSULATING LUMBER

For Other Celotex Products see pages: House Insulation, 87-89; Plaster Base, 72; Sheathing, 110.





# The Original Texture Paint **CRAFTEX**

## CRAFTEX COMPANY

37-39 Antwerp St., Brighton Station, Boston, Mass.

New York Office  
285 Madison Ave.

Chicago Office  
307 N. Michigan Ave.

Atlanta Office  
605 Bona Allen Bldg.



Canadian Representatives:

Raines Co.

1008 Anderson St., Montreal

International Laboratories, Ltd.,  
St. Boniface

Trade Mark Reg. U. S. and Foreign Patent Offices

### What Craftex Is

Craftex is a plastic wall paint supplied in powder form which is mixed with water into a thick paste much heavier than paint and applied with a brush. Before it dries on the wall, any painter by following simple directions, can produce texture and color effects in a variety limited only by his ingenuity and artistic ability.

### Surfaces on Which Craftex Can Be Used

After proper preparation, Craftex can be applied to any surface to which paint will adhere, and it is equally effective over sanded or smooth finished plaster or any type of wall board, which should be prepared in accordance with the directions of the manufacturers.

### The Process and Its Effects

After Craftex is applied with a brush, it clings to the wall in a soft, plastic coat that is as thick as heavy canvas. The decorator then manipulates this paste-like coating with a brush, spatula, sponge or other tools in every-day use by a painter. By following directions he finds it possible easily to create the most strikingly beautiful traceries and embossings in brocaded shade-and-light effects whose unstudied irregularity is their most tasteful feature. These textures, in themselves, constitute the finished surface when color has been added to the Craftex before its application. If desired, the surface, after drying, is sanded and sized with Craftsized and glazed with Craftcoat in any tint preferred.

### Water Float



## CRAFTEX TEXTURES

**Water Float.** The water float finish was evolved after extensive study of old wall surfaces in Italy and Spain, but on account of its restrained and unusual textural beauty, it is also extensively used for the modern interior.

**Brush Stipple.** The stipple is a simple and attractive texture, and because of its simplicity, is adaptable to a wide variety of interiors. One-coat stipples in pastel shades are charming for bedrooms.

**Trowelled.** The smoothed surface is delightfully picturesque and fits in especially well with the informal English house and dark stained woodwork.

### Brush Stipple



## CRAFTEX is unequalled in Wall

### Coverage and Texture Range

**CRAFTEX**—the first commercially produced texture paint—is scientifically prepared with its pigment values and reactions perfectly balanced. It has greater dry and wet bulk, greater covering capacity, and greater range of color and texturing possibilities than any other texture paint on the market.

Craftex is not affected by extremes in climatic conditions. Scientific tests and actual costs records prove that "on the wall" Craftex is the most economical texture paint.



### Trowelled



~ A PRODUCT OF **CRAFTEX Company** ~  
BOSTON (Brighton Station) MASS.



# CRAFTEX *The Modern Wall Finish*



## Beauty With Economy

A Craftex wall is one whose first cost is really lower than that of high grade wall paper, yet its delicate beauty endures unchanged throughout the years. Time serves only to mellow its velvety sheen. It is sanitary, easily cleaned and sturdily resistant to rough usage.

For the painter or home owner who delights in the tastefully unusual, Craftex, with its sensitively-wrought surface opens a wide world of possibilities in the expression of artistic individuality. Depending on the angle at which the light strikes its surface, it delights the eye with depths and shallows, ripples and rugged wastes, velvet and bur-lap in endless variety. Thus it becomes "to the manner born" in the small home or the large building, public or private.

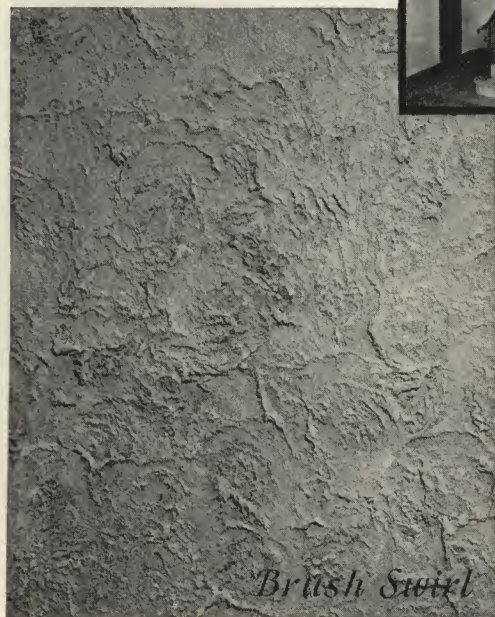
Craftex Company maintains a Bureau of Service and Decorating for Painters, Builders, and Home Owners. This Bureau gladly extends its painstaking, sympathetically understanding aid to help every inquirer to obtain just the effect he seeks and to save him money.



*Brushed and Smoothed*



*Travertine*



*Brush Swirl*

## CRAFTEX TEXTURES

**Brushed**—The brushed and smoothed texture has quite a definite pattern, and is especially desirable in breaking up and giving life to otherwise monotonous wall spaces. It is adapted to any type of interior.

**Travertine**—Travertine is formal and dignified. It is a rich and impressive finish for halls and entrances in the more pretentious house.

**Brush Swirl**—The Swirl is extremely decorative and effective and fits in charmingly with surroundings of Spanish derivation or other expansive surfaces.

## Other Craftex Products

**Craftexsize**—A powder size, dissolved by boiling in water, for sizing Craftex preparatory to glazing with Craftcoat.

**Craftcoat**—A heavy oil and wax glaze for carrying oil colors. Readily wiped to bring out highlights. The Craftcoat brings out the texture and flats to a soft sheen. Also an excellent glaze for general use.

**Sunflex**—"The Miracle Paint," for industrial, office, and residential interiors. A new water soluble mill white which brushes or sprays and stays white indefinitely. Has over 90 per cent light reflection value; great hiding capacity and coverage. Can be applied over new plaster without sizing or over green concrete. Dries quickly and can be tinted. Sold in paste form, ready to mix and apply. Descriptive booklet sent on request.

A PRODUCT OF **CRAFTEX Company**  
BOSTON (Brighton Station) MASS.

HOME BUILDERS CATALOG



# MARB-L-COTE—For Textured Walls

(MARBLE APPLIED WITH A BRUSH)

Made by

**MARB-L-COTE, Incorporated**

400 North Michigan Avenue, Chicago, Ill.

Marb-L-Cote is carried in stock by leading paint dealers.  
If yours is not supplied, communicate with home office

## Textured Walls Made Practical for Use in Homes

Marb-L-Cote takes the beautiful uneven wall finishes of whatever decorative age you admire and reproduces them in your home in a low cost, easily cleanable medium of great durability.

Marb-L-Cote is applied with a brush—like plastic paint. You can apply Marb-L-Cote over any finish that will take paint. In new houses over rough or smooth plaster, or over wood, metal, masonry, wall board, plaster board or fibre board. Marb-L-Cote can also be applied over any painted surface, and is very widely used in remodeling and redecorating. Any color combination—any desired texture—can be quickly achieved. Decorators know and like to work with Marb-L-Cote.

## What Marb-L-Cote Is

Marb-L-Cote is made up of sixty-five percent pure finely-ground Georgia Marble. Mixed with water it becomes a paste easily applied to walls or ceiling with a calcimine brush. It is textured while soft and sets to a marble-like hardness over night.

The job is completed by a sizing coat and a color glaze.

Marb-L-Cote is the hardest textured finish ever devised. It stands unlimited abuse without chipping, powdering or cracking. You can gouge at the Marb-L-Cote wall with the edge of a coin without inflicting damage. Furniture scuffed against it will not mar the surface. It has great elasticity and tensile strength—hence is ideal for use over wall boards, plaster boards or fibre boards.

Pour ink over Marb-L-Cote—it will not retain a stain. Wash it hundreds of times—the luster and color will never fade or become lost.

## Period Finishes

Marb-L-Cote perfectly reproduces the restrained colors and uneven relief finishes of Early American walls or ceilings, the hand worked, glowing textures of Spanish and Moorish walls, the delicate colors and effects of the Italian Renaissance. Old English, Roman Travertine, French Antique—whatever the atmosphere of your home Marb-L-Cote faithfully renders your walls and ceilings to the effect desired.

Well informed decorators know exactly how to obtain the various finishes. In order that you may understand what these textures are we will supply free a valuable book containing large color reproductions of walls of each decorative period.

## Color and Ornamentation

Blended color effects of any desired type are easily produced in Marb-L-Cote. Relief ornamentation, for a plaque



*Pleasing example of Italian treatment in decoration. Note perfect blending of Marb-L-Coted wall with ornamentation and furnishings.*

over the mantle, or for a border, become with Marb-L-Cote so low in cost as to be available for every modest home. Consult your architect or decorator. Or write to Marb-L-Cote, Inc., at Chicago for complete information.

## Any Decorator Can Apply

Decorators like to work in Marb-L-Cote. Its beauty, lasting qualities and freedom from trouble during and after application make it the decorator's favorite among plastic wall finishes. You may with entire safety consult any good decorator about the effects and colors you desire. Marb-L-Cote is obtainable in all cities, and is known and used from coast to coast.

## Service Department

While you are planning your home write for valuable book containing examples of many good interiors in the various period finishes. This book contains full color reproductions of Marb-L-Cote textures. One of the most valuable helps to home

planning and decoration, it is yours free of charge upon request.

In addition Marb-L-Cote maintains a service department to which you may submit your ideas for criticism and suggestion. Expert advice will be given on any decorative problem. This service is yours entirely without charge.

## FREE BOOKLET

in Full Colors

Send for valuable book on  
Interior Decoration. Contains  
full color pictures of interiors  
and home planning advice.



For further details and  
literature, write to:

**MARB-L-COTE, Inc.**

400 N. Michigan Ave.  
Chicago, Ill.

HOME BUILDERS CATALOG

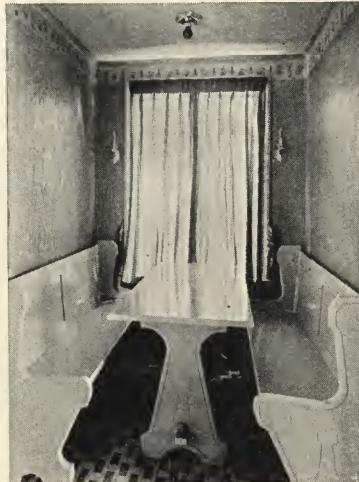


# MARB-L-COTE—(Continued)

(MARBLE APPLIED WITH A BRUSH)



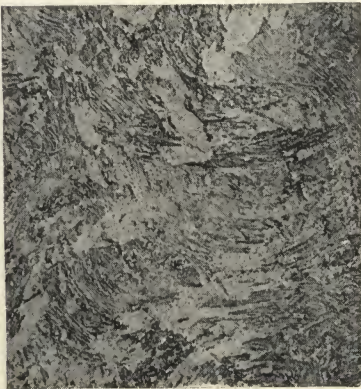
A typical living room finished in Marb-L-Cote. The ornamentation of the ceiling is executed entirely in Marb-L-Cote. Your decorator will be glad to explain how this is done and to submit samples and estimates.



A cozy breakfast nook with Marb-L-Coted walls and ceiling. Architects and interior decorators now widely prescribe textured walls in the soft colors so readily produced in Marb-L-Cote.



An attractive bedroom in the Colonial style. Decorators use the simpler textures of Marb-L-Cote to produce interiors of true early American atmosphere.



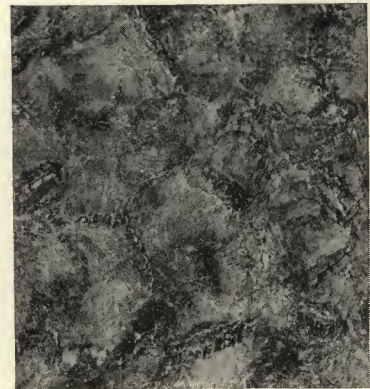
## An Italian Finish

The delicate relief of the interior walls of the Italian Renaissance may be satisfactorily produced in Marb-L-Cote. Ask your decorator to show samples and color plates.



## Early American

Many of the beautiful homes of old New England had walls of simple one tone textures similar to that suggested above. Restrained effects are easily produced in Marb-L-Cote. They make the ideal setting for fine Colonial furnishings. They are a correct interior to match Colonial proportion and mass in the design of the house itself.



## Spanish

The Moorish influence in Spain brought to that country hand palmed wall interiors of great beauty and rich coloring. The photo above suggests the nature of a Spanish treatment. Of this finish, also, your decorator can supply actual samples.



Texture has always been one of the most important elements in architecture and decoration. Flat surfaces tend to become uninteresting. From the earliest time, men have worked surfaces of inside walls and ceilings into a semblance of beauty.



Above is a glimpse of the lounge in the Detroit Yacht Club, Detroit, Michigan. All of the delicate work on the beams and all relief decorations, as well as entire wall and ceiling surfaces, are done in Marb-L-Cote.



An example of Marb-L-Cote in conjunction with a wrought iron doorway and electric fixtures done in wrought iron. Bear in mind that Marb-L-Cote is inexpensive enough for use in modest homes, as well as in these more ornate structures.



For further details and literature, write to:

**MARB-L-COTE, Inc.**

400 N. Michigan Ave.  
Chicago, Ill.



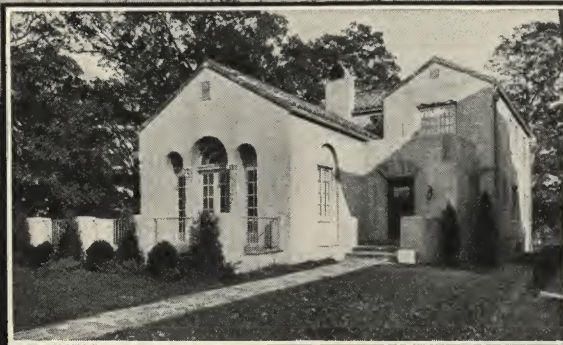
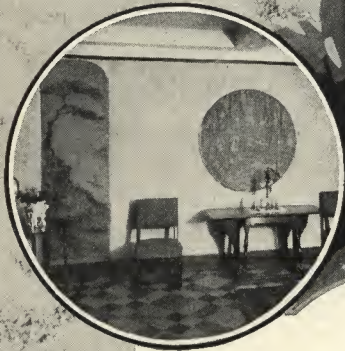
# MORENE

The Wall Finish Distinctive—a Portland Cement Product

Manufactured by

Morene Products Co., Inc., 154 East 47th St., New York

Branch Offices in CHICAGO, WASHINGTON, PHILADELPHIA, BOSTON, TORONTO



Above, exterior view of Cafritz Model Spanish Home, Cafritz Construction Co., Washington, D. C. Interior views—Apartment of Mr. Jos. Sapinsky, Att'y, Ho-

tel des Artistes, 1 W. 67th St., N. Y. C. Circle and panel in photograph on left are made of Morene, blending with Morene walls.

## This NEW textural wall finish makes the problem of selection an easy one for the home builder

*An infinite variety of textures and colors. Easy to apply. Lasting. Practical. And surprisingly inexpensive.*

FOR INTERIORS AS WELL AS EXTERIORS

IT IS MORENE—and is made of white Portland cement, sand, asbestos, OILS and chemicals, all so mixed and the oils so emulsified that they remain in suspension, producing a plastic, durable wall finish that is not affected by rain or weather or scrubbing with soap and water. It may be used, therefore, for interior as well as exterior wall finishing.

### May Be Applied to Any Surface—Easily, Quickly

Morene may be applied to any surface, in any color, with an ordinary brush or trowel. In new buildings it serves as the finishing coat of plaster—in old buildings it may be applied to white or brown plaster, wood, metal or painted surfaces, gypsum or fibre wallboards and so on, with complete texture and color effect as desired.

If the structural surface to which it is applied remains intact Morene will not check or crack.

Unevenness and defects in the joints of wallboards, and cracks in plastered walls, are made invisible quite easily.

### Inexpensive—Economical

The cost of applying this permanent wall finish to new surfaces is approximately the same as a good three-coat paint job—for the simpler textures and colors.

Washing, painting or cleaning old surfaces is not at all necessary—they may be covered with Morene at once, and the time, labor and expense of such preparation work is entirely eliminated. It is actually cheaper to use Morene than clean and re-paint old surfaces. Once Morene is applied there is no further trouble or expense—no maintenance cost whatever.

Oftentimes, when covering old surfaces, one may leave some of the old spots showing and obtain a very charming mottled effect.

### An Infinite Variety of Texture

Any desired texture and two or more color combinations may be secured at one and the same time. Morene is the *only* wall finish of which this may be said.

The textures possible with Morene are limitless in number and simple to obtain—even a

Tapestry effects. Sand finishes. Travertine. Caen stone. Limestone. Unfinished marble. Hand stipples in limitless variety and tones.

The border effect on these two pages is one of the finishes obtainable with Morene.



For further details and literature write to:

MORENE PRODUCTS CO., Inc.

154 East 47th St., New York



# MORENE The Wall Finish Distinctive



1



2

1. Morene brushed on roughly—flattened with trowel. 2. Simply worked on with brush. 3. Brushed on and sponge stippled. 4. Brushed on, roughly stippled and flattened with palette knife.



3



4

novice finds it a medium by which most artistic effects can be produced with very little experiment.

## An Infinite Variety of Color

Morene is white—creamish grey, to be more exact. Oil colors are added when Morene is actually to be used. (In large quantities the colors will be added at the factory.) Any color or tint can be produced to harmonize with any type or decorative scheme, from the deepest hues to the most delicate pastel shades.

## The Permanency of Concrete—the Artistic Possibilities of Oil Paints

Already Morene has been selected for the walls, both interior and exterior, of some of the finest specimens of modern architectural and building art—and for the re-embellishment of many other erected buildings.

This is not at all surprising, since Morene, combining as it does the durability of concrete and the artistic flexibility of oil paints, enables the builder to accomplish a great deal more both in structural permanency and distinctive appearance than with any other wall finishing medium.

*A sample of Morene will be sent upon request—and full instructions as to the various methods of producing any desired effect.*

## Containers and Capacities

Shipped in  $\frac{1}{2}$  and 1 gallon cans, 5 gallon steel pails and 25 and 50 gallon barrels or steel drums.

The average covering capacity is about 60 square feet of wall surface to the gallon, varying naturally with the textural requirements. We have made large installations averaging in excess of 100 square feet and others of extremely heavy texture as low as 30 square feet.

## Inquiries Will Be Given Our Closest Interest

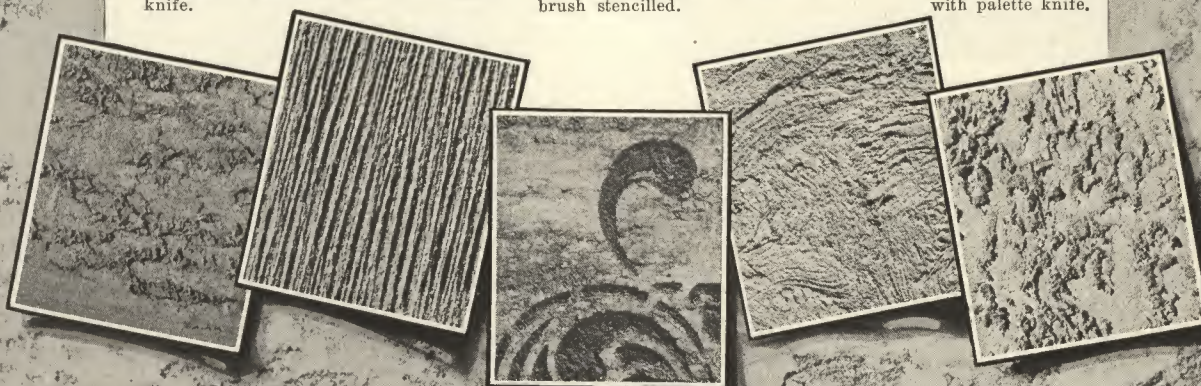
We shall be glad at all times to answer any inquiries and offer any suggestions we can in the solving of specific building and decorating problems as they apply to textural wall finishes.

# MORENE The Wall Finish Distinctive

for interiors • ARTISTIC • PERMANENT • for exteriors

A few of the many beautiful finishes and textures obtainable:

- 1 Heavy brush coat stippled and flattened with palette knife.
- 2 Heavily brushed on and raked out with wire brush.
- 3 Sponge stippled and flattened, relief ornaments brush stenciled.
- 4 Brushed on roughly.
- 5 Brushed on, roughly stippled, partially flattened with palette knife.



For further details and literature write to:

**MORENE PRODUCTS CO., Inc.**

154 East 47th St.,  
New York



# Muralo Decorative Wall Coatings

Manufactured by

**THE MURALO COMPANY, Inc.**

GENERAL OFFICES AND FACTORY

570 Richmond Terrace

STATEN ISLAND, N. Y.

BRANCH OFFICES AND WAREHOUSES

BOSTON, MASS., 141 Milk Street    CHICAGO, ILL., 317 North Wells Street    SAN FRANCISCO, CAL., Potrero and 18th Streets

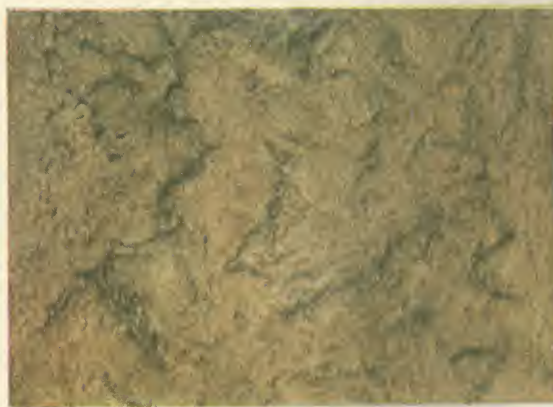
## Mural-Tex—For Textured and Relief Decoration

MURAL-TEX is a product of modern invention and modern manufacture by which a most interesting and unusual array of decorative wall effects may be obtained. With it, the old textured walls of the early English, Italian and Spanish schools may be repro-

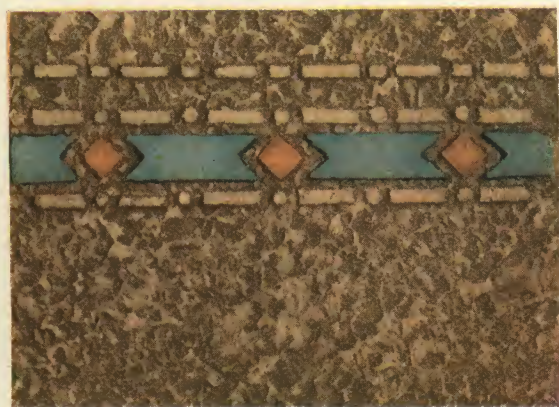
**Mixing and Applying**—MURAL-TEX is manufactured in dry powder form, and simply requires mixing with ordinary cold water to prepare it for immediate use. The mixture is applied to wall or ceiling surfaces with a suitable brush. Any desired texture may then be developed by manipulating the surface with a



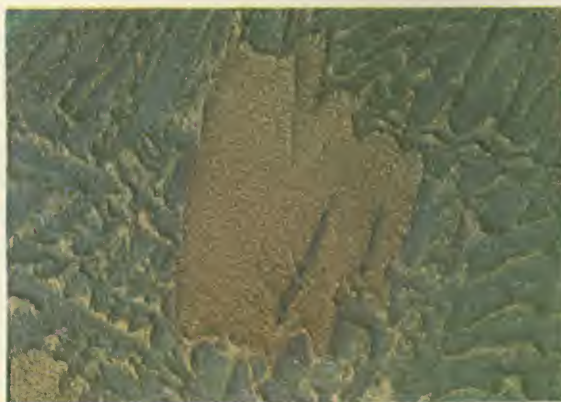
Spanish Texture



Rough Sponge Texture



Sponge Stippled and Stenciled



Novelty Texture

duced. In addition it offers unusual opportunities for original expression. With each new application of MURAL-TEX some new textural effect evolves.

**Effects Obtainable**—The color plates featured on this page are photographic reproductions of actual wall surfaces decorated with MURAL-TEX and will serve as examples of the many novel treatments in both texture and color that can be readily developed with MURAL-TEX and appropriate coloring materials. In fact, texture and color are, so to speak, incidental details subject to individual expression.

brush, whisk broom, comb, stippler, sponge, wad of paper, broad knife or other implement. The surface is then colored and glazed by simple processes.

**Adaptability**—Particularly adaptable for the decoration of interior walls and ceilings. The finer textures and less pronounced color effects are most appropriate for use in the home, and the more rugged designs and bolder color tones are generally employed for decorating the broader areas of wall surfaces in hotels, churches, theaters, clubrooms, lodges, public buildings and other edifices.



For further details and literature, write to:

**THE MURALO COMPANY, Inc.**

570 Richmond Terrace  
Staten Island, N. Y.



# Muralo Decorative Wall Coatings (Cont'd)

## Mural-TEX—For Textured and Relief Decoration

The awakening of an appreciation of the value of artistic surroundings in the home has produced a wide acceptance of the work of the early craftsmen guilds in furniture, draperies and decorative treatment of wall surfaces. With crude tools and materials the innate artistry of these craftsmen produced textured wall effects that added remarkably to the beauty of historic interiors.

Heretofore the reproduction of these effective wall treatments has been limited to the more expensive buildings due to the fact that few artisans were capable of handling the material available effectively. Now, however, with the perfection of MURAL-TEX, any practical painter or decorator, with a little practice, can produce not only reproductions of the classic period textures, but countless individual textured treatments, which will harmonize with and lend character to any and every decorative scheme.

**Advantages**—(1) A pleasing departure from the usual flat surfaces.

(2) An unlimited range of decorative effects in both texture and color.

(3) It is ready for immediate use when mixed with Cold Water—no waiting.

(4) Easy to mix and apply, requiring but limited practice to secure good results.

(5) It is free from alkali so will not affect colors, mar woodwork or injure the hands.

(6) It is free from ammonia fumes and objectionable odors.

(7) May be applied over plaster, wall board, brick, concrete, wood or any solid surface that provides a firm foundation.

(8) Covers with a single coat, as compared with oil paints which usually require three or more coats.

(9) A permanent surface that will withstand the usual wear and tear that a wall finish is subjected to.

(10) When protected with a finishing coat of Flatting Oil or Glazing Liquid, the surface can be readily washed with water to remove dirt and dust.

## Muralo Wall Size

Preliminary treatment of wall surfaces prior to applying wall coatings in general is very essential. Reputable decorative coatings are often condemned as unsatisfactory when, as a matter of fact, the surfaces to which applied are not in proper condition to receive the coating.

A priming coat of Muralo Wall Size produces a perfect foundation and insures the successful outcome of the completed work. Compounded in dry powder form and is ready for use when dissolved with boiling water.

## Muralo Sanitary Wall Coatings

The ideal material for decorating interior walls and ceilings in all manner of residences and public buildings, where harmonious color treatments are essential factors.

**Composition**—Muralo Sanitary Wall Coatings are manufactured in dry powder form from the best selected raw materials, and compounded in such a manner that they require only mixing with either cold, warm or hot water, whichever is most convenient, to prepare them for immediate application over plaster, wood, burlap or any of the various wall boards.

Expert supervision over all manufacturing processes insures a uniform product that always meets the most exacting of decorative requirements.

### MURALO STANDARD TINTS COLOR CHART



ALSO MADE IN WHITE, 12 DEEP COLORS AND BLACK

**Range of Colors**—Muralo Sanitary Wall Coatings are milled in the 18 light tints featured on the accompanying color chart, 12 deep colors, white and black.

By intermixing the white with the tints and deep colors, or intermixing the tints and deep colors an infinite variety of intermediate shades may be developed to suit individual requirements. The possibilities for soft blending of tints and shades and artistic harmonizing of colors are unlimited.

**Decorative Value**—No matter what the style, the general treatment or proposed color scheme for a room may be, Muralo shades harmonize perfectly. They adapt themselves to any type of decoration, from the plain, severe Colonial to the highly ornate.

The deep subdued colors, the range of dainty, delicate tints with their rich velvety finish, devoid of gloss or glare, create an atmosphere of elegance, distinction and refinement, adding new charm to the cottage and mansion alike.



For further details and literature, write to:

**THE MURALO COMPANY, Inc.**

570 Richmond Terrace  
Staten Island, N. Y.



# Sanitas Modern Wall Covering

Manufactured by

THE STANDARD TEXTILE PRODUCTS COMPANY

320 Broadway

New York

## Product

SANITAS MODERN WALL COVERING.

DISTRIBUTED THROUGH BEST WHOLESALE HOUSES IN THE UNITED STATES.

## Description of Sanitas

Sanitas is a *cloth wall covering*, painted with standard paint pigments in the best linseed oil. A number of coats of this oil and standard pigment paint are applied by machinery.

The *tensile strength* of the finished materials 40 lb. per sq. in. in the warp and 30 lb. on the average woof.

## Advantages of Sanitas

The method of manufacture forms a dense, non-porous paint surfacing thoroughly incorporated into the cloth so that the face does not fade, chip or peel from the backing. Being non-porous, soil incidental to use is easily wiped off with cloth or removed by the same method as in cleaning paint. The paint face is impervious to moisture, steam, etc., and will not absorb household odors.

For hospital use, walls covered with Sanitas Modern

**SANITAS**  
MODERN  
WALL COVERING  
SELVAGE MARK

Wall Covering can be disinfected in the usual manner without injury if, after disinfecting, the walls are washed with warm water.

For public buildings, stores, offices, dwellings, the high tensile strength of the fabric protects plaster from cracking or hard knocks and supplies the finished oil painted decoration, wall protection and sanitary qualities in one operation at a cost not exceeding the expense of good wall paper.

## Upkeep Cost of Sanitas

There are many instances where Sanitas has been on the walls for 12 and 15 years, the only upkeep cost being that of washing off once in two or three years with a damp cloth.

A large industrial plant with a housing equipment of 345 employees' dwellings gave us the following comparative costs of upkeep for 8 years:



Look for this  
trade mark

**Calsomine**—Original cost and 3 renewals cost per year, per square yard, 7¼c. Plaster repairs not included.

**Spray Paint**—Original cost and 2 renewals cost per year, per square 77/8c. Plaster repairs not included.

**Sanitas**—Original cost, no renewals, **no plaster repairs**, 2 washings, cost per year, per square yard, including original cost, 6⅔c.

## Specifications for Hanging Sanitas (Condensed)

Prepare all plastered surfaces by carefully cutting out and filling all cracks smooth and flush with the plaster plane.

Prepare a glue size by soaking 1 lb. white ground glue in cold water, add 12 qts. hot water and 1 tablespoonful of alum. Apply hot with a paste brush.

Trim the edges of the Sanitas perfectly straight and true with a sharp knife using a long metal faced straightedge. Paste the back of the goods with any standard paste used by paper hangers, working the paste thoroughly into the fiber of the fabric. Butt the edges to a straight true tight joint and press and smooth with a paper hanger's brush. Do not use a hard roller on the seams; wipe over each seam with a soft cloth wrung out in cold clean water. This will render each seam invisible except to the closest inspection.

## Literature, Samples and Information furnished as follows:

A descriptive folder entitled "Sanitas Modern Wall Covering" containing full details with quality clippings enclosed.

Sample Books showing the full line of designs and colorings.

Name and address of nearest distributor.

Names and addresses of local decorators experienced in the hanging of Sanitas Modern Wall Coverings. These lists compiled from reports made by representatives after personal interviews.

N. B.—The information as to the Approximate Cost of supplying and hanging Sanitas is not authoritative for every locality. Prices naturally vary according to location, labor costs, etc. It is only an approximate guide to preliminary cost estimating. Sanitas is so widely distributed however that estimates can be easily obtained from local Contractors.

Our **Architects Service Bureau** will gladly supply upon request any special information as to Specification forms, methods of application of Sanitas over plaster, concrete or any kind of Wall Board, etc.



For further details and  
literature, write to:

The Standard Textile Products Company, Dept. 60

320 Broadway  
NEW YORK, N. Y.

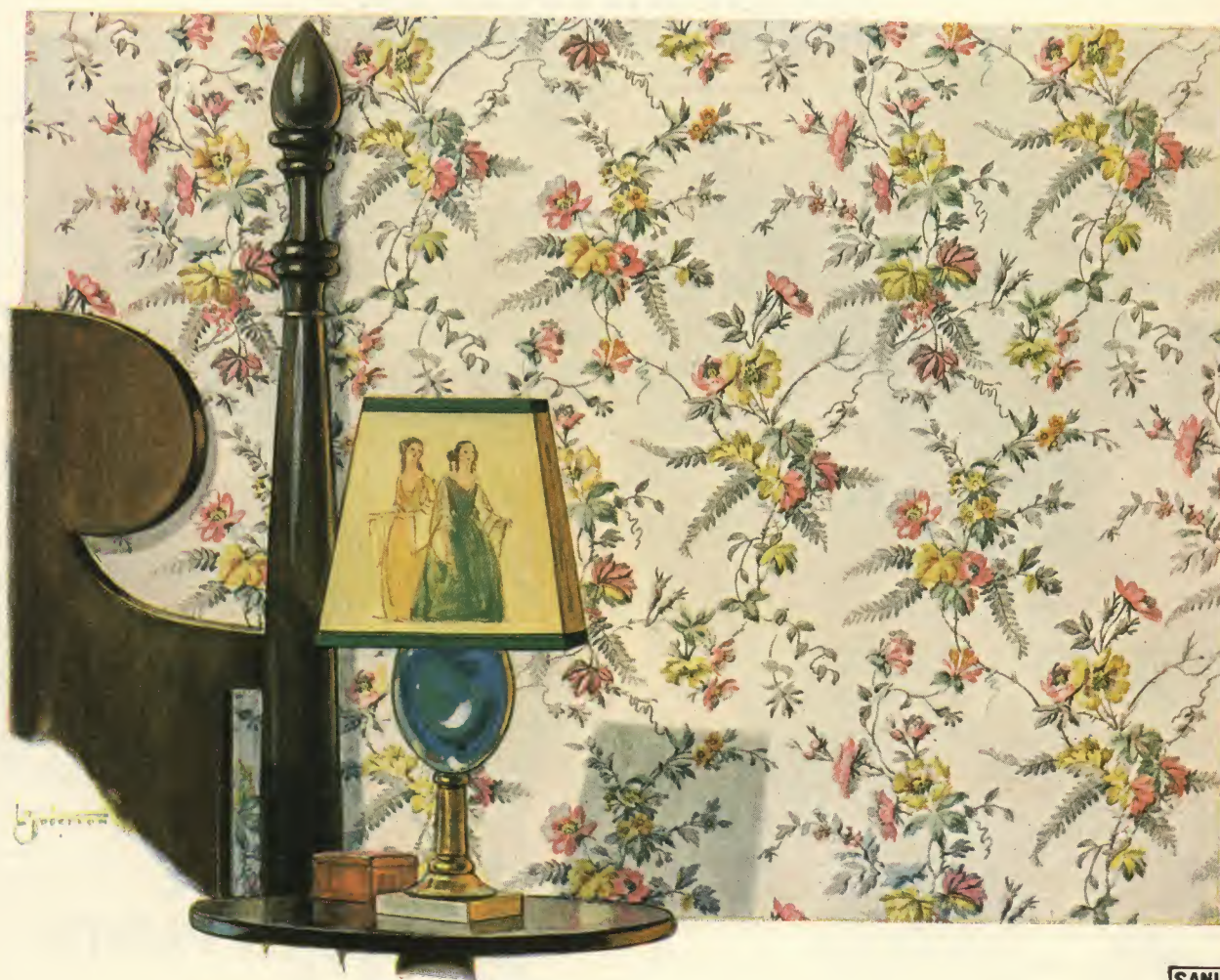


# Sanitas Modern Wall Covering

Manufactured by

THE STANDARD TEXTILE PRODUCTS COMPANY

320 Broadway, New York, N. Y.



*This is a reproduction of Sanitas pattern No. R4192 Decorative Flat Finish, 1/5 actual size.*



Trade Mark

## Styles for Every Room

Sanitas can be had in styles and finishes for every room in the house requiring the simplest or the most elaborate decoration. Approximately 150 styles to choose from including Plain and Pastel Flat Finish, Decorative Flat Finish, Metalline Brocade and Enamel Finish.

## No Waiting for Walls to Settle

Sanitas can be hung as soon as plaster walls and ceilings are dry. Should cracks develop when building settles, they will not show through Sanitas as it is made of strong cloth.

## Ideal for Public Buildings

Many hotels, schools, hospitals, apartment houses and lodges find Sanitas an ideal wall covering because of its beauty and its long service. The upkeep cost is low. Easily cleaned with a damp cloth.

## 25 Years of Experience

Sanitas has been used successfully for the past 25 years by builders and decorators throughout the civilized world. Not a fad of the day but a practical cloth wall covering for walls and ceilings where first cost is the final cost.

## Sanitas—the Original

Sanitas is the original, washable cloth wall covering and is obtainable in the largest range of patterns. Every factory roll of Sanitas bears the Sanitas trademark. It is well to look for it to be sure you get the genuine.

## 48 Inches Wide

Sanitas comes in rolls, 48 inches wide, 12 yards to the roll. This width means fewer edges to trim and fewer seams to match.

## Sanitas Sample Book

This large sample book contains the full line of Sanitas and in addition offers many decorating suggestions in full color. Sent only to decorators, builders and architects. Home owners can see the sample book at their decorators'.

## Samples and Literature

Booklets and samples of Sanitas will be sent free to anyone mentioning Home Builders' Catalog.



For further details and literature, write to:

The Standard Textile Products Company, Dept. 60

320 Broadway  
NEW YORK, N. Y.



# BLUE PRINTS — OZALID <sup>RED</sup> LINE PRINTS

Reproduction Department

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EUGENE DIETZGEN CO.

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Send your drawings and tracings to Dietzgen's nearest branch for quick, blue print service, and for sharp, distinct, permanent prints.

## ONE DAY BLUE PRINT SERVICE

Prints are returned same day tracings are received.

Every Dietzgen branch is fully equipped with modern blue print machinery—capable of performing your work quickly and economically.

Instructions are followed accurately and you may be sure that Dietzgen prints will outwear the roughest usage in the office or on the job.

You may feel confident in sending your valuable drawings and tracings. Every precaution is taken in handling your prints—if for any reason they are retained over night, they are locked in our fireproof vault for safe keeping.

Deep, permanent prints—sharp distinct lines—is what makes Dietzgen prints desired.

Send your next order to your nearest Dietzgen branch—the economy, dispatch, and satisfaction will please you.

A new printing paper called "Ozalid" which produces dark lines on a light background, is strongly recommended to the Builder and Architect. It is an inexpensive print, forcible, clear, easy to read, and understand. Your client will be pleased, you will be satisfied.



## THE NEW OZALID <sup>RED</sup> LINE PRINTS

There has always been a need for a "dressed-up" print to better display the Architects and Builders ideas and give a clearer conception to the client. The Ozalid print does this most effectively.

Ozalid prints have dark red or maroon lines on a light cream background, and are produced direct from the tracing without a negative.

These prints are non-fading and can be shaded, colored, or written on with pencil or ink, and therefore, can be altered or drawn upon, or otherwise treated to effectively display the drawing with force and clarity.

Ozalid prints speed up construction and minimize costly errors. Prints made from thin paper Ozalid can be used as originals from which other prints can be made. Sub-contractors can use these prints for skeleton drawing for detailing their work.

Have Ozalid prints made from your next tracing and satisfy yourself of its effectiveness and advantages, and please your client with its clearness.



For further details and literature, write to:

EUGENE DIETZGEN CO.

166 W. Monroe St.  
Chicago, Ill.



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## Drawing Materials—Builders' Levels

Made by

**EUGENE DIETZGEN CO.**

166 West Monroe Street, CHICAGO

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## Drafting Furniture

Drawing Tables in many styles and sizes—stools, filing cabinets, etc. Well constructed and neatly finished. We have a complete line of Drafting Furniture and supplies that will meet your need.



### The Utility Folding Stand

Adapted for builders for use on the job. It can be folded and placed out of the way when not in use. Made of hardwood and is adjustable in height from 28 to 36 inches.

No. 4430. Utility Folding Stand.

No. 4430-5. Utility Folding Stand with drawing board, size, 23 x 31 in.

## The Ideal Drawing Tables

Strong, rigid, and well constructed of hardwood, neatly finished. Has a well seasoned white pine drawing board top.

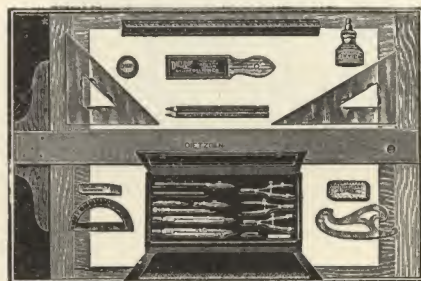
Adjustable in heights from 32 to 40 inches, and top can be tilted to any angle.

No. 4440-6. Ideal Drawing Table with board, size, 31 x 43.



## Drawing Materials and Instruments

Dietzgen has a complete line of drawing materials and instruments—drawing paper, tracing cloth—ink, triangles, scales, T Squares—everything for the draftsman, and a wide selection to meet any need.



example and exercise furnished No. 1100B. Practical Drawing Outfit.

## Drawing Outfit

Complete drawing outfit designed for use of Contractor and Builder, for making and altering plans. Full instruction book on the use and care of drawing instruments with each outfit.

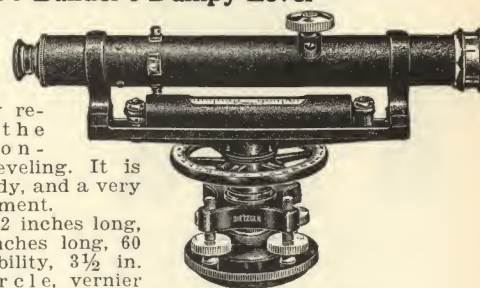
## Builders' Instruments

The Builder's Level is being widely used by successful builders as the best, most accurate, and least expensive means for laying out building sites, determining levels for excavations and fills, and for accurately locating elevations for foundations, piers, and abutments.

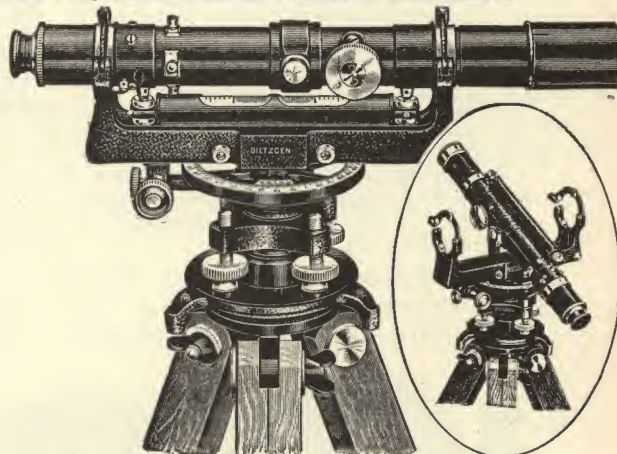
### The No. 6370 Builder's Dumpy Level

Is exceptionally well made and very reliable, and meets every requirement of the Builder or Contractor for leveling. It is accurate, sturdy, and a very reliable instrument.

Telescope, 12 inches long, level vial 5 inches long, 60 seconds sensibility,  $3\frac{1}{2}$  in. horizontal circle, vernier reading to 5 minutes.

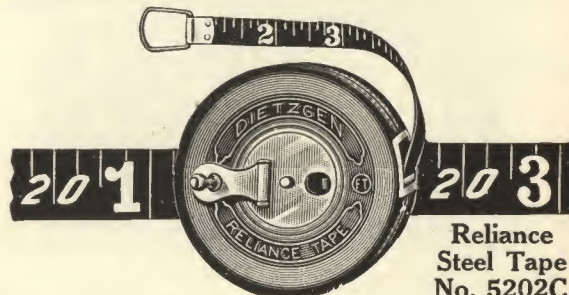


### The No. 6381 Builder's Convertible Level



Is an excellent, accurate, building level, which has an arrangement for converting it into a transit, for sighting objects above or below the horizontal plane. It is an ideal all-around instrument, meeting every requirement of the Builder and Architect.

Telescope, 12 inches long, level vial 5 inches, 60 seconds sensibility;  $3\frac{1}{2}$  inch horizontal circle; vernier reading to 5 minutes.



**Reliance Steel Tape No. 5202C**

A steel tape which has accuracy, wearing qualities, and quick reading figures—foot mark is shown in a different size and shape figures before each inch mark. Has a steel lined hand sewed leather case, with push button handle.



For further details and literature, write to:

**Eugene Dietzgen**

166 W. Monroe St.  
CHICAGO, ILL.



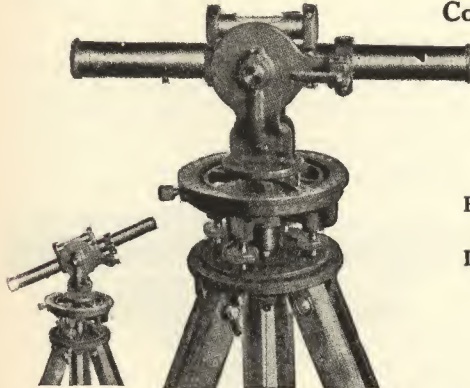
# "JIFFY" Portable Saw Rigs, "MAGIC" Mixers Builders' Levels

Manufactured by

**A. S. ALOE COMPANY**  
1819 Olive St., St. Louis, Mo.

## "Handy Andy" Duplex Level

Convertible

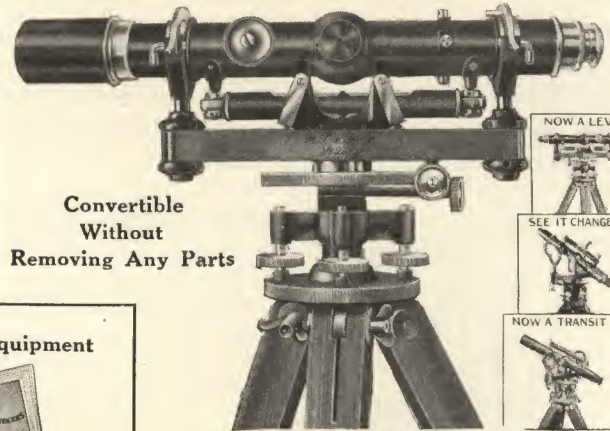


Efficiency  
at  
Low Cost

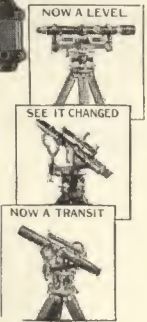
For Those Who Want a Low Price  
Convertible Level

The new departure in levels makes it possible to secure at a low cost a combined Transit and Level having new features not incorporated in any other. With this level there is no need to lift telescope from wyes when changing from level to transit; there is no jolting of the instrument; no clamps or screws to loosen. A simple pull of a lever is all that is necessary. Has three point bearings on both axes, insuring perfect contact of surfaces. The "Handy Andy" Duplex Level comes complete with Carrying Case, Plumb Bob, Rod Ribbon and Book of Instructions. This Level-Transit may be secured on Free Trial on Easy Terms if desired.

## Aloe "Master" Convertible Level and Transit Combined



Convertible  
Without  
Removing Any Parts



### It Has No Superior

Built with the same accuracy and precision as an engineer's transit, this Convertible Level stands out as unique from others of its kind. The 12-inch telescope magnifies 22 diameters, making it easy to read a rod at a distance of 800 feet. All wearing parts are made of Phosphor Bronze, harder than the hardest steel. The instrument will last a lifetime. Easily changes from level to transit—no parts to take off or be lost. The instrument is compact, easy to carry and set up. Comes with mahogany carrying case, metal trivet, tripod, and a complete Instruction Book. You learn to use the Level in an hour. No technical knowledge necessary. Free Trial and Easy Terms if desired.

## Catalog of Equipment

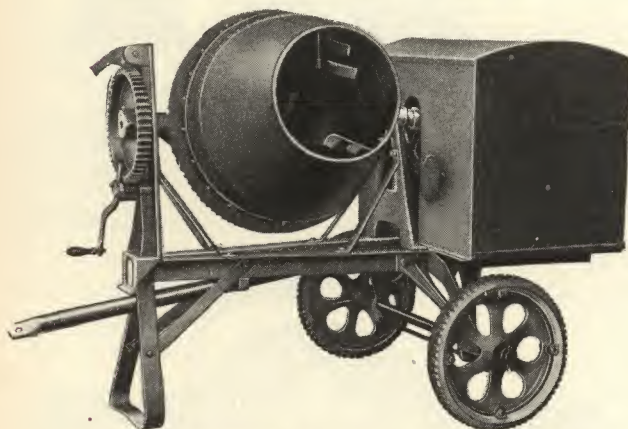


### New Specialties for Builders

The latest income-producing equipment for builders and contractors is described in this catalog. Send for it.

## The Aloe "Magic" Concrete Mixer

Trailer Type—Disappearing Transfer Bar



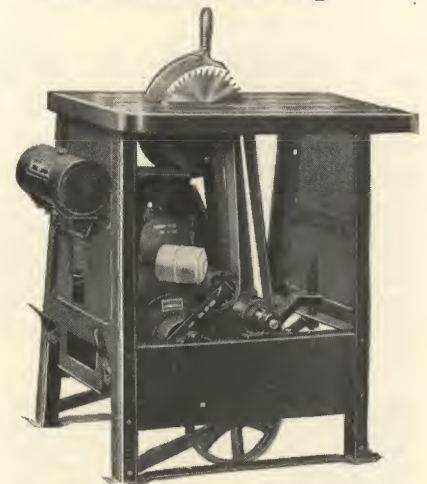
### Guaranteed Half-Bag Capacity

The "Magic" Mixer will mix slush concrete for pouring walls, semi-wet concrete for sidewalks, etc., semi-dry for bricks, fence posts and ornamental work, and dry concrete for blocks, and will also mix brick mortar. Has full half-bag capacity, with 2½ H. P. 4-cycle engine with Wico high tension magneto. Disc steel wheels and solid cushion tires. Has gear drive and gear dump. Will load from one side and gear dump on the other. Ten days' Free Trial and Easy Terms if desired.

## High Power "Jiffy" Portable Saw Rig

Gas or Electric

You  
Take  
It  
From  
Cellar  
To  
Attic



### Cross-cuts, Rips, Miters—Takes Dado Head

Every builder has had occasion to regret the great waste and inefficiency in the practice of hand sawing. At one stroke the "Jiffy" Saw wipes out 85% of this tedious, unprofitable work. It does cross-cutting, ripping, mitering—all that the hand saw does, and in a tenth of the time. Saw is arbor type—swings through the lumber. Table is arranged to take dado head. The saw is powered by a gasoline or electric motor, as you prefer. This saw will enable a saving of 10% to 12% on the entire cost of frame buildings. With two helpers at 45c an hour, a carpenter, using the "Jiffy" can lay out and frame a bungalow in a day. Free Trial and Easy Terms if desired.

These Articles May Be Bought on  
**EASY TERMS**



For further details and literature, write to:

**A. S. ALOE COMPANY**

1819 Olive St.  
St. Louis, Mo.



# JAEGER MIXERS

Concrete

Mortar

Plaster

Manufactured by  
**THE JAEGER MACHINE COMPANY**  
720 Dublin Avenue, Columbus, Ohio

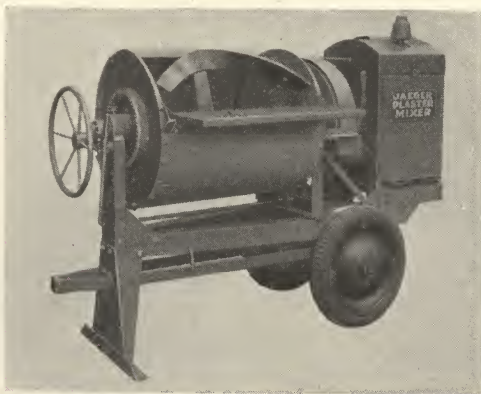


*Get this New Catalog*

Jaeger makes a complete line of Mixers in thirty-six styles and all sizes from half bag up to three bag capacities to fit the smallest culvert job up to one for skyscrapers. Jaeger is the largest selling line of mixers in the world, not on account of our reasonable prices but because of our many patented labor saving features, thorough mixing and extremely fast discharging action.

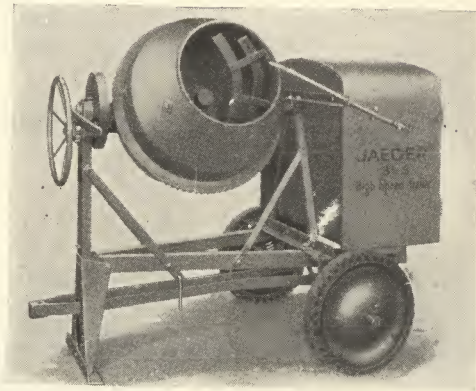
## JAEGER SPOUTING PLANTS AND JAEGER PAVERS

Space does not permit of more than mentioning some of our principal machines. Write for our big Catalog, giving complete description of our entire line, including Spouting Plants and Pavers.



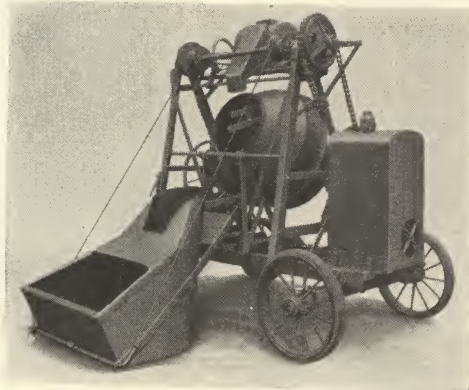
## JAEGER PLASTER AND MORTAR MIXER

Architects and engineers today are specifying machine mixed mortar and plaster. Jaeger cuts the mixing costs in half—mixes patent or hair plaster or mortar with proper temper so that it spreads smoothly and faster under the trowel.



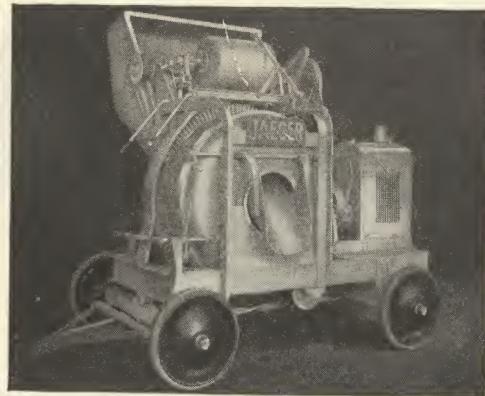
## JAEGER HIGH SPEED TRAILER

This widely used outfit is built in five foot capacity unmixed and will turn in an average house foundation in a day easily. Furnished with steel or rubber tired wheels with roller bearings—also auxiliary spring for long hauls over bad roads back of a car or truck.



## JAEGER 5-S LIGHT ONE BAG TILTER

An extremely popular size for general work, big or small. The famous Jaeger Pat'd drum mixes faster, more thoroughly and dumps automatically. Pat'd Jaeger tank tilts and pours a measured amount of water for each batch. Loader outfits built in half to two bag capacities to fit all jobs. Hoist attachment can be furnished on all Jaeger Mixers.



## JAEGER 10-S NON-TILT MIXER

This heavy duty all steel mixer has a capacity of two bags 1—2½—5 mix, yet weighs and costs no more than ordinary 7-S mixers. 100% Roller Bearing equipped, famous Jaeger direct drive eliminating countershafts. Ask for Catalogue N-27.



For prices, convenient terms  
and catalog, write to:

**THE JAEGER MACHINE COMPANY**

720 Dublin Ave.  
COLUMBUS, OHIO



# KOEHRING CONSTRUCTION MIXERS

Manufactured by

**KOEHRING COMPANY**  
MILWAUKEE, WISCONSIN

Sales Offices in All Principal Cities

**Pavers, Mixers, Subgrade Planers,  
Bar Benders**



**Gasoline Shovels, Cranes, Draglines,  
Bar Cutters**

## 5S Dandie Mixer

The 5S Dandie is a dependable mixer of staunch construction and exceptionally fast operation. Designed to serve the building contractor in all concrete work where a mixer of one-bag capacity (1-2½-4) is the desired size, it is especially adapted to the yardage required and frequent moves necessary in home building work.

In foundation work and footings, pouring walls, floors and sidewalks, where each job is short and frequent moves are necessary, the Dandie makes a big saving in time. With rubber tires, disc wheels, three point suspension type of front axle and narrow frame it is easily and quickly moved. Just hitch the Dandie to your car or truck and you are soon ready for the next job.

The 5S Dandie is powered with a single cylinder gasoline engine and may be furnished with charging skip or low charging hopper and platform.

The Koehring Dandie is also built in the 7S and 10S sizes which have the sturdy construction and extra-yardage speed characteristic of all Koehring mixers. They may be equipped with either a two or four cylinder gasoline engine, low charging hopper and platform or power charging skip.

## Profit-Making Features

The gears of the power transmission unit are completely enclosed and operate in oil. The combination flexible coupling and disc clutch, which are connected to a nickel steel worm shaft, are other units designed for long service life.

Long bearings between the drum rollers assure ease in operation and eliminate unnecessary wear.

## 14S Heavy Duty Mixer for the Larger Building Jobs

For the larger building jobs where the yardage of concrete demands a bigger mixer, the Koehring Heavy Duty 14S is a most practical machine.

Like the Dandie mixers, the 14S may be equipped with rubber tires for quick moving. Its compact construction with narrow frame and narrow drum permits short turning in tight places.

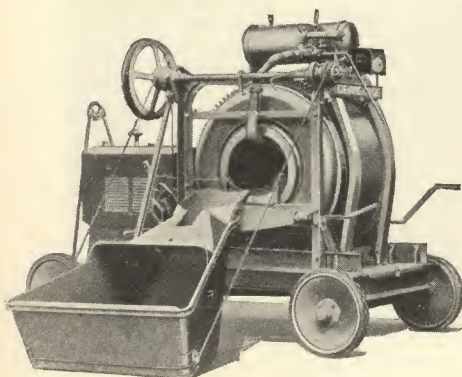
Drum-end control allows one man to operate every control lever of the 14S mixer from the drum end, where he has both charging and discharging operations in full view. This means seconds saved on every batch.

## Additional Sizes of Construction Mixers

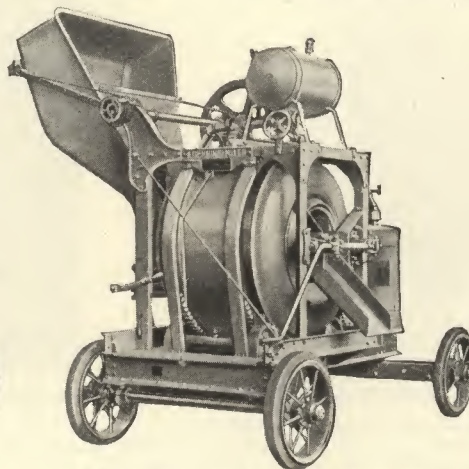
Catalogs and specifications of the Dandie mixers and also of the larger Heavy Duty construction mixers Nos. 14S, 21S and 28S, will be sent upon request.



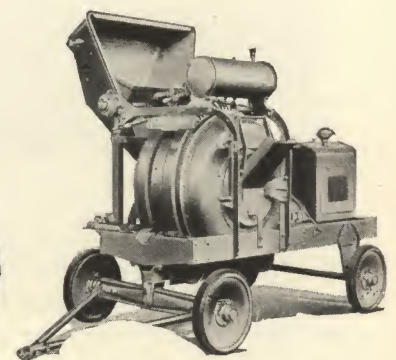
5S Dandie on Home Building Job



10S Dandie, a two-bagger with a batchmeter and drum-end control



14S Heavy Duty Construction Mixer with drum-end control



7S Dandie, a sturdy mixer, easily portable



For further details and literature, write to:

**KOEHRING COMPANY**

MILWAUKEE  
WISCONSIN





# SMITH CONCRETE MIXERS



Made by

THE T. L. SMITH COMPANY

1066 32nd Street, Milwaukee, Wis.

SALES OFFICES AND SERVICE STATIONS IN ALL PRINCIPAL CITIES

Products: Tilting Concrete Mixers in 11 sizes from 2½-S up to 112-S; Non-Tilting Mixers in 6 sizes from 5-S to 28-S inclusive; a range of models which takes care of every class of concrete construction work.

The Smith 2½-S (Mascot) weighs but 730 lbs., has a full trussed rear axle and is readily towed from job to job. So low in price there is no longer any reason to buy inferior mixers.

**Now—New  
Lower Prices**



Smith 3½-S Tilter—Discharges in 8 seconds and high enough for wheelbarrows. Half-bag capacity. Now at lower price.

Smith Mixers have been made since 1900, 28 years, and are used by contractors, large and small, the world over. Users of the small sizes find them trouble-free and dependable; builders of huge dams and reservoirs like the long life at high speed of the large models. The experience of a quarter of a century and the use of only the finest materials makes each size as rugged and dependable as a mixer can be made.

The Smith Mascot, pictured above, has a capacity of 25 to 45 cu. yds. per day and is ideal for the small job and repair contractor. It is light enough to be drawn along the forms or easily towed from job to job—has an easy, one-hand tilt that can be operated from either side of the mixer—a 1½ h. p., high quality engine—and an electric welded steel drum turning at 15 r.p.m. Choice of two steel truck wheels, or wheels for Ford 30" x 3½" pneumatic tires. Capacity—2½ cu. ft. per batch—a full wheelbarrow load.

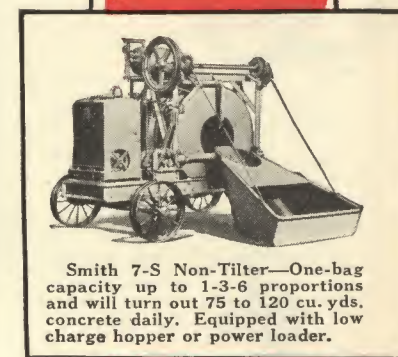
The 3½-S Tilter also has fast mix and discharge and produces 35 to 50 cu. yds. of concrete daily. It is the smallest Smith on which a power loader is supplied. Power loader speeds up production 30 per cent. Has 1½ h. p. engine when equipped with feed chute, weight 1270 lbs.; 2½ h. p. if loader is used, weight 1730 lbs. Choice of four steel wheels or two clincher wheels for 30" x 3½" Ford tires.

Model 5-S is made both Tilting and Non-Tilting. In either type it is a one-bag mixer with a capacity of 50 to 80 cu. yds. daily. Furnished with low charge hopper and platform, or with power loader. Furnished on four steel wheels or cushion tired wheels. Non-tilter, also on skids.

The complete line and the famous Smith "end-to-center" mixing action are fully described in catalog 528—gladly sent on request.



Smith 5-S Non-Tilter—Well suited to 1-2-4 proportions. Powered with either 1-cyl., 4 h. p. or 2-cyl., 6 h. p. engine.



Smith 7-S Non-Tilter—One-bag capacity up to 1-3-6 proportions and will turn out 75 to 120 cu. yds. concrete daily. Equipped with low charge hopper or power loader.



For further details and literature, write to:

THE T. L. SMITH COMPANY, Milwaukee, Wis.



FOR THE  
LUMBER YARD

# Woodworking Equipment

FOR THE  
CONTRACTOR

MADE BY

AMERICAN SAW MILL MACHINERY COMPANY

180 Main St., Hackettstown, New Jersey

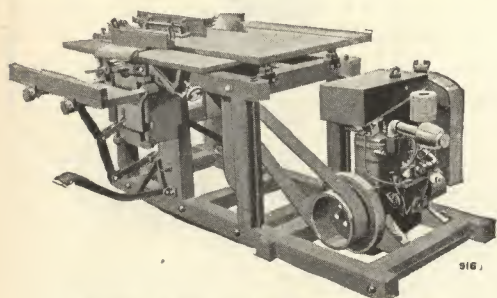
**WE MANUFACTURE** Saw Mill and Woodworking Machinery for every operation from the tree to the finished product. A few illustrations from our catalog are shown below. The catalog

itself, is yours for the asking, or we will send you information on any particular machine in which you may be interested.

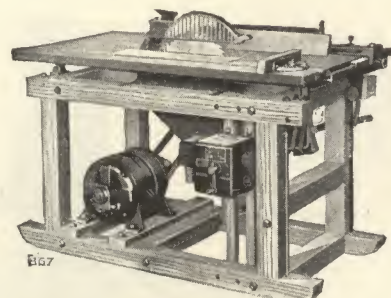
## VARIETY WOODWORKER

A Complete Woodworking  
Plant at Moderate Cost

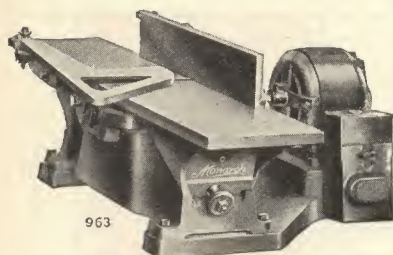
**MORE THAN 4,000  
IN USE**



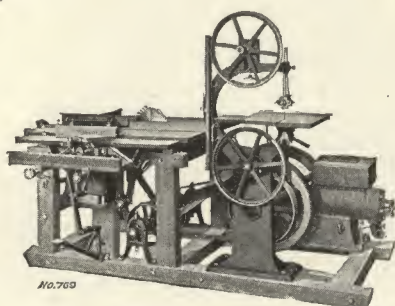
Variety Woodworker With Engine



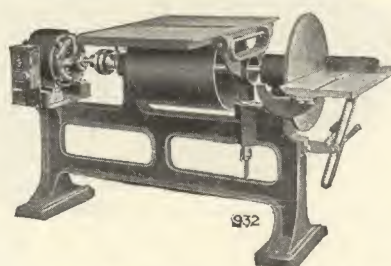
Variety Woodworker With Motor



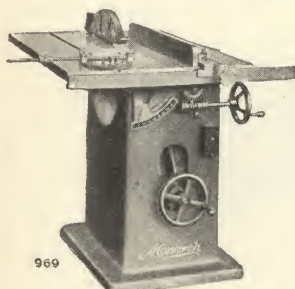
6-Inch Bench Jointer  
Made also in 8, 12 and 16 sizes.  
For Belt or Motor Drive



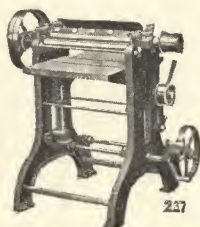
Variety Woodworker With Band  
Saw



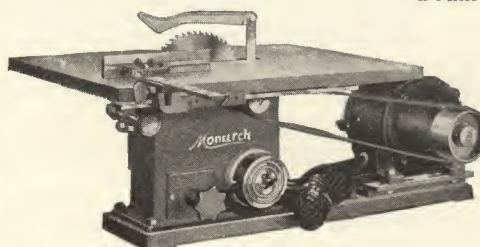
Drum and Disc Sander for Belt or  
Motor Drive



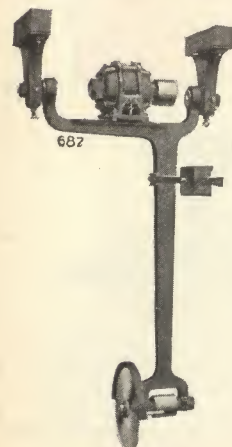
Variety Saw



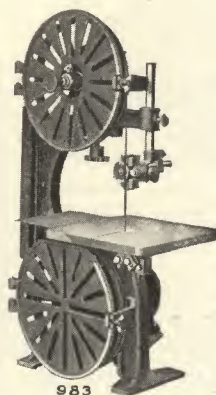
Single Surfacers



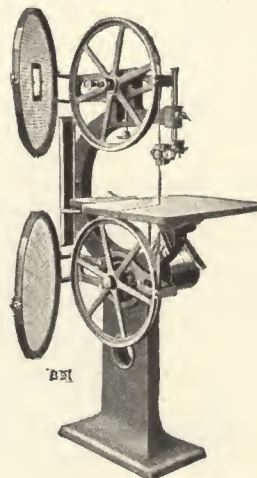
Ball Bearing Bench Saw



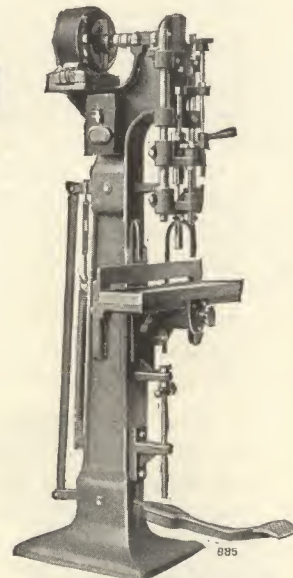
Swing Saw



Bench Band Saw  
Operates from Lamp Socket  
Also made for Belt Drive



Band Saws  
4 Sizes  
16, 20, 27 and 36 inch



Hollow Chisel Mortiser  
For Belt or Motor Drive

**Write for Copy of  
Catalog Describing  
Complete Lines**



For further details and  
literature, write to:

**AMERICAN SAW MILL MACHINERY CO.**

HACKETTSTOWN,  
NEW JERSEY



# The HUTCHINSON LINE

## WOODWORKERS

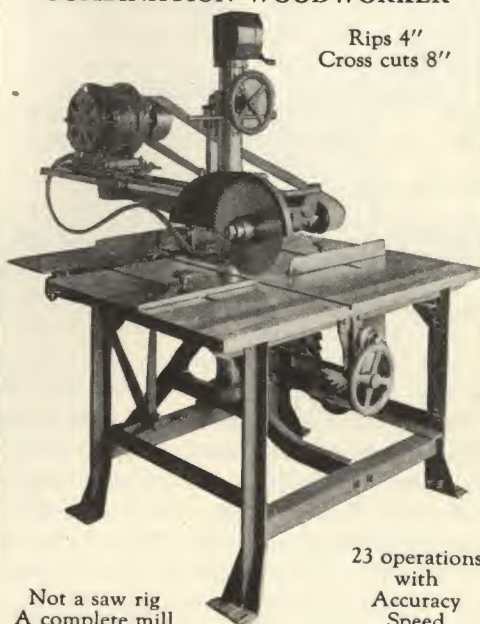
with a National Reputation for  
**Accuracy - Speed - Economy**

The same principle applies to woodworking machinery as to any other part of your equipment. **It pays to buy the best.** "More contracts at a bigger profit" is the experience of the thousands of users of our machines.

The BEAVER and SPEED MARVEL are not saw rigs, but complete portable mills with the overhead parallel swing saw feature. The work is always visible and the lumber lies in the same direction no matter what operation is being done. Both machines perform the same operations, the only difference being in the size material they will handle.

By comparison with other machines you will find that the BEAVER and SPEED MARVEL contain more profit producing features than any others offered.

### SPEED MARVEL COMBINATION WOODWORKER

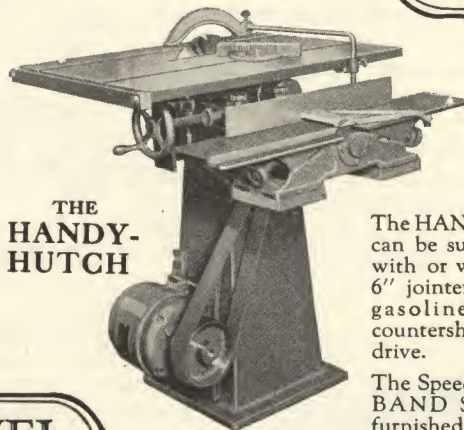


Rips 4"  
Cross cuts 8"

Not a saw rig  
A complete mill  
in itself

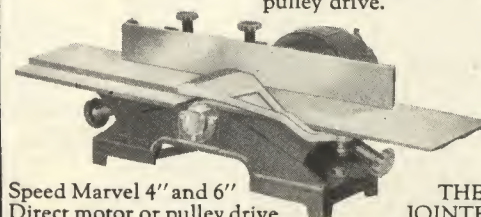
23 operations  
with  
Accuracy  
Speed  
Economy

### THE HANDY- HUTCH



The HANDY-HUTCH can be supplied either with or without 4" or 6" jointer. Also with gasoline engine or countershaft for pulley drive.

The Speed Marvel 16" BAND SAW can be furnished with built-in motor or arranged for pulley drive.



Speed Marvel 4" and 6"  
Direct motor or pulley drive  
jointers

### THE JOINTERS

With extra long top plates

Whether your requirements are for large machines to handle massive work or smaller ones to save time and material on ordinary shop or building jobs, there is a Hutchinson machine to suit your needs. We would be glad to send you details regarding any of our machinery.

**HUTCHINSON MFG. CO., INC.**  
MAIN OFFICE AND FACTORY, NORRISTOWN, PA.

- ☐ SPEED MARVEL
- ☐ BEAVER
- ☐ HANDY-HUTCH
- ☐ 4" ☐ 6" JOINTER
- ☐ BAND SAW

Please put X in square opposite the machine you are interested in

HUTCHINSON MFG. CO., Norristown, Pa.

Without obligating myself I would like further information.

Name

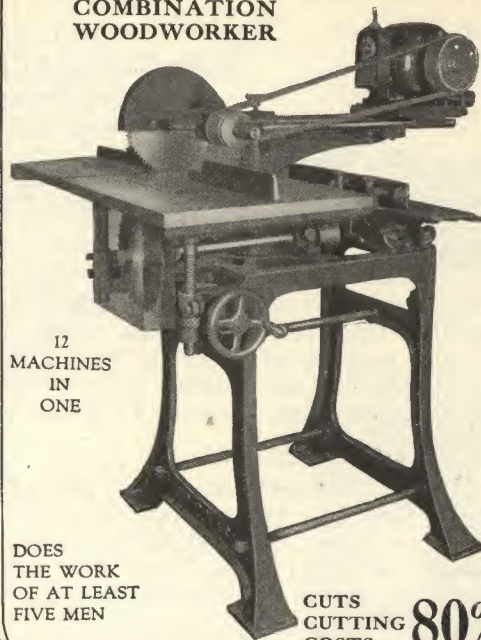
Address

Business

TIME  
PAYMENT  
PLAN FOR  
YOUR CON-  
VENIENCE

## BEAVER

COMBINATION  
WOODWORKER



12  
MACHINES  
IN  
ONE

DOES  
THE WORK  
OF AT LEAST  
FIVE MEN

CUTS  
CUTTING COSTS **80%**

### SPEED MARVEL BAND SAW

Cuts into  
center of  
32"

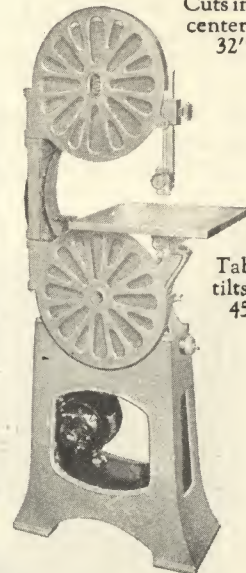


Table  
tilts to  
45°



# Wallace Portable Woodworking Machines

Made by  
**J. D. WALLACE & CO.**

Factory and General Offices:  
155 South California Ave., Chicago, Illinois

**Branch Sales Offices:** New York, Boston, Philadelphia, Baltimore, Buffalo, Pittsburgh, Cincinnati, Columbus, Cleveland, Detroit, Milwaukee, Minneapolis, Kansas City, Louisville, Atlanta, Lakeland (Florida), St. Louis, Dallas, Denver, Salt Lake City, Portland, San Francisco, Los Angeles, Toronto (Ontario). Representatives in Principal Countries of the World.



**Products:** This company makes a line of Portable Woodworking Machine which can be easily carried from the shop to the job and which will so greatly increase the productive capacity of your carpenters that the savings in wages will quickly pay for the machines, to say nothing of more accurate work. Wherever wood is worked, cut, jointed or turned Wallace Portable Machines will diminish costs and increase production. Twenty thousand contractors are now using them.

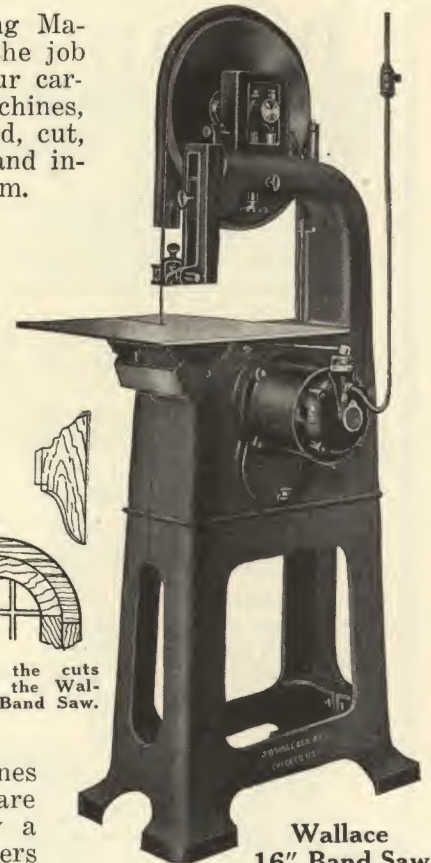
## The Wallace Principle:

Wallace Portable Machines are **individual** machines, each specially designed to do a certain class of work, just as your hand tools are each designed for a special purpose. A combined hand saw and plane would be neither a very good saw nor a good plane and if one workman were using it for sawing, another workman who might wish to use it for planing would have to wait until the first had finished with it.

By designing each machine **for one class of work only** Wallace is able to make a simpler, smaller and lighter machine that will perform in the best possible manner the kind of work it is intended to do. Another important advantage of individual machines is that each can be placed in the location most convenient to the workman who is using it. All Wallace machines can be operated from any electric light socket and two men can easily carry any machine from room to room in the house under construction, keeping the machine close to the work.



Some of the cuts made on the Wallace 16" Band Saw.



Wallace 16" Band Saw

## Quick Set-Up:

With Wallace Machines different operations are performed merely by a change of saws or cutters—you do not have to remove any part of the machine itself when setting up for various jobs. For instance, in 10 seconds the Wallace 6" Jointer can be set for a deep rabbet cut. Each machine is direct connected to an individual motor, mounted on frame of machine, insuring a uniform cutting speed. There are no belts requiring constant adjustment to prevent slipping.



Some of the cuts made on the Wallace Universal Saw.



Wallace Universal Saw

## This Is the Age of Machines:

Wages are high and are likely to remain so. Hand work is no longer profitable—it is too slow, too expensive. The only salvation of the contractor-builder is to increase production by the use of labor-saving machines which will not only handle his ripping, cross-cutting, and jointing, but also turn out moulding, rabbeting and irregular sawing jobs, cut concrete forms, rafters, studding, bridging, hip and valley shingles, etc.; perform all woodworking operations on door and window frames, porch and window screens, stair routing, dadoing and case work.

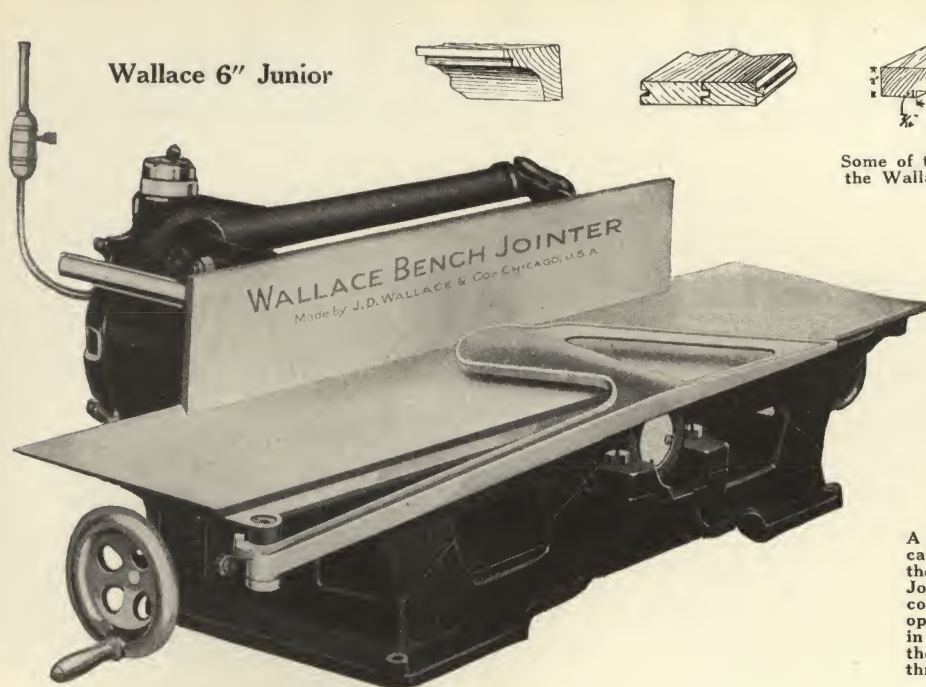
For further details and literature, write to:

**J. D. WALLACE & CO.**

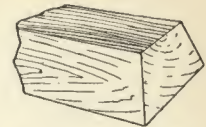
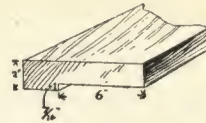
155 S. California Ave.,  
Chicago, Illinois.



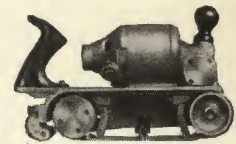
# Wallace Portable Woodworking Machines—(Continued)



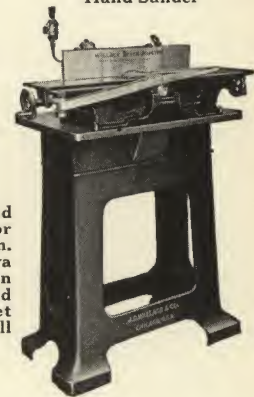
Wallace 6" Junior



Some of the cuts made on the Wallace 6-in. Jointer



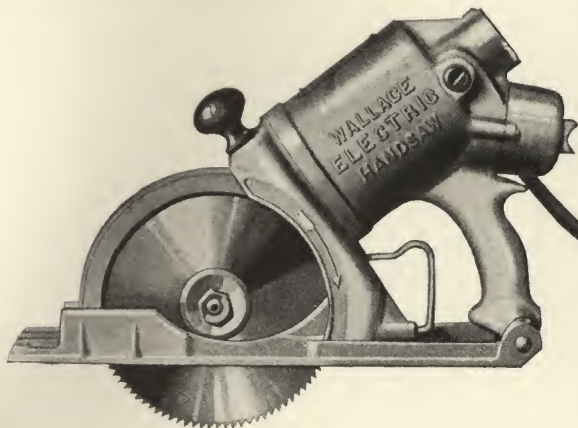
New Wonder Hand Sander



A cast iron stand can be supplied for the Wallace 6-in. Jointer, at an extra cost, if desired. An opening is provided in the center to let the shavings fall through.

## The Three Machines You Need

All of the above operations can be performed accurately, quickly and economically by the three Wallace machines illustrated on these two pages—the Wallace 16" Band Saw, Wallace 6" Jointer, and Wallace Universal (circular) Saw. In addition to the above we make a 4" Planer, 6" Lathe, Mortiser, Spindle Sander, Disc Sander, Electric Glue Pots, Electric Hand Saw and Electric Hand Sander.



## Wallace Electric Handsaw

Absolutely safe, light weight and well balanced. Ample power to handle any cutting operation with ease.

Many exclusive features include the automatic safety shoe, safety switch, hand grips of plane type, hair line cutting guide, splitter and depth regulator.

Will quickly pay for itself in time and labor savings.

Write for complete catalog of Wallace Portable Machines and learn how to cut costs and speed up production on your next job.



W. W. Metcalf, general contractor, Kansas City, built 40 houses shown above—made all mill work, cabinets, etc., in his shop on Wallace Machines, effecting a saving of over 50%.



For further details and literature, write to:

J. D. WALLACE & CO.

155 S. California Ave.  
CHICAGO, ILLINOIS

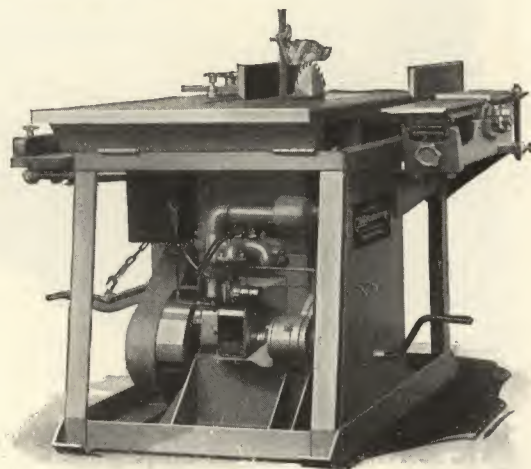




## HOME BUILDERS' SAW RIG

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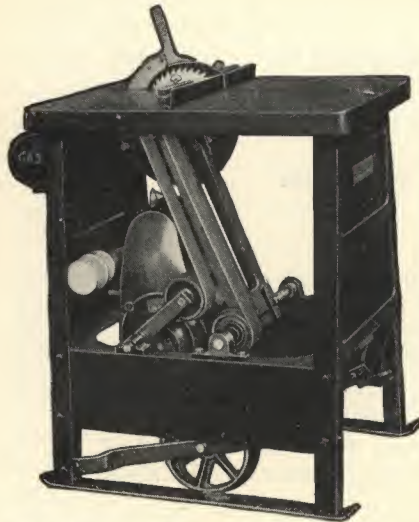


# PORTABLE



# SPEEDY

Manufactured by  
**D. W. ONAN & SONS**  
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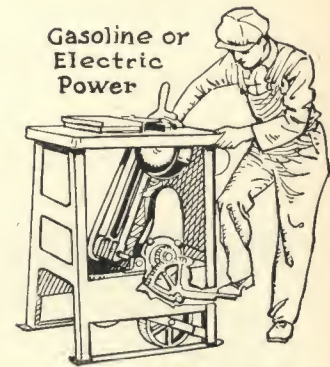


## Product

ONAN "SAFTY SAW" is a portable, light-weight, safe and inexpensive saw, power driven, with the necessary capacity for sawing all lumber on building construction. Particularly used in the construction of new dwellings and buildings on which electric current is not available. Other power saws were not practical because their weight made moving from place to place costly and special handling equipment was necessary. Not only can the "SAFTY SAW" be loaded on a truck by two men, but it can be moved about the work by the operator when necessary.

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Starter Provided

**Portable  
Move It Anywhere—  
It Is Always Ready to Run**

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For the same reason you run your mixer with gasoline power, (electric current not often available on new construction) ONAN "SAFTY SAW" has been worked out with lightweight gasoline engine. The engine used is of the high speed, air cooled, governor controlled type. The vibration usually accompanying gasoline engines has been removed with an eliminator mounting. Starting is made simple and easy with the pedal starter—governor control keeps a constant speed.

Electric motor can be furnished, interchangeable with gasoline engine. Time required for change approximately ten minutes. Both motor and engine are installed within the frame of the machine.

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No longer should each board be squared and marked by the old method. Set the stop, put the board or stud in place and cut ten where you mark one.

## Operating Cost

Less than one dollar for a ten hour day. One man with an ONAN "SAFTY SAW" will saw as much building dimension as ten men with hand saws.

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Means less building cost, less fitting and more rigid construction.

## "SAFTY SAW" Is not a PORTABLE HAND SAW

where you mark the board, hold it with your knee and depend on the operator. "It's a he SAW" and does a machine cut job. Not even dependent on electric service.



## Construction

Built of steel throughout. Arbor is ball bearing. Idlers are self-oiling; belts endless; the machine is capable of steady, heavy work.

## The Lumber Dealer's Special

For lumber yard use. Cutting service, when offered the trade, is greatly helping the retail yard. Many companies furnish ready cut buildings such as garages, brooder houses, hog houses, corn cribs, and other small buildings, ready to assemble. This has proven a very profitable department as well as a good advertising plan.

Electric driven for service in lumber yards and for millright and heavy construction. It is of the same design with larger cutting capacity and more power.

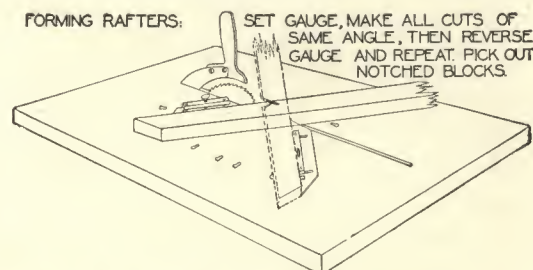
## Cutting Capacity

Cutting capacity sufficient for all building dimensions up to 2 x 12. This will put all of your building on a production basis. You will save 50% of the labor when **Forming Rafters, Joists, Studs, Stair Horses, Cutting Bridging, Sheathing and all Roughing. Ideal for Trimming Sash, Doors, Screens, Fitting Finish** of all kinds.

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ONAN "SAFTY SAW" is of the bench swing type making it possible to **cross cut, rip and miter** on the same equipment, by conventional methods. **CROSS CUTTING AND MITERING** are done by swinging the saw through the material; for **RIPPING**, the saw arbor is locked at the center of the table. A ripping gauge is used parallel the blade and the material is fed to the saw in the regular method.

## FORMING RAFTERS:



SET GAUGE, MAKE ALL CUTS OF SAME ANGLE, THEN REVERSE GAUGE AND REPEAT. PICK OUT NOTCHED BLOCKS.

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All material is cut and formed before being passed to the job. There is no extra handling of material—no waste because all shorts are at the saw—no squaring—your job is square and plumb.

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For smooth cutting and fine work, planer blades are now available which eliminates planing or jointing by the old method. Arbor is provided to handle dado of 6" diameter to rabbet and groove.



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Made By

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## No. 6A.

A general purpose contractors barrow. Standard A. G. C. size for dry material or concrete. Tray is 16 gauge reinforced at top edge with  $\frac{5}{16}$ " rod. Channel steel legs equipped with shoes. Clear maple handles equipped with steel tips. No. 2 self-lubricating wheel. Width 29"; length 65"; height 25"; weight 72 pounds. Capacity  $3\frac{1}{2}$  cu. ft.

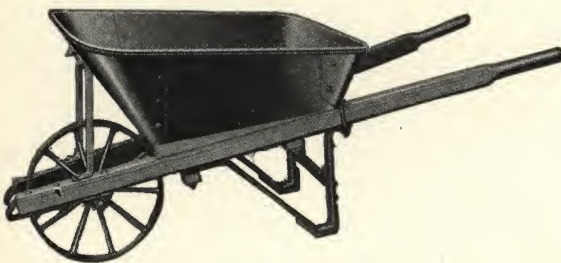
*No. 15. Equipped with wheel guard instead of tips. Otherwise the same as 6A above described.*



## No. 7 and 7B.

This is the steel handle companion to the No. 6A barrow. It is made in two capacities  $3\frac{1}{2}$  and 4 cu. ft. Tray is 16 gauge reinforced at top with  $\frac{5}{16}$ " rod. Channel steel legs equipped with shoes. No. 2 self-lubricating wheel.

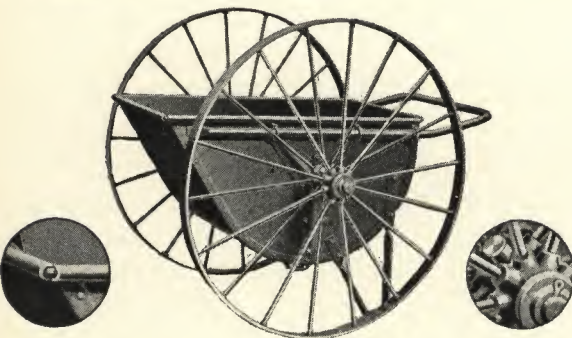
|        | Width | Length | Height             | Weight | Capacity               |
|--------|-------|--------|--------------------|--------|------------------------|
| No. 7  | 29"   | 65"    | 23 $\frac{1}{2}$ " | 73     | $3\frac{1}{2}$ cu. ft. |
| No. 7B | 30"   | 65"    | 25"                | 76     | 4 cu. ft.              |



## No. 10A.

Mortar and concrete barrow built to A. G. C. standard size and construction. Tray is 16 gauge reinforced at top with  $\frac{5}{16}$ " rod. Channel steel legs equipped with steel shoes. Maple handles equipped with steel tips. No. 2 self-lubricating wheel. Width 29"; length 65"; height 27"; weight 76 pounds. Capacity  $4\frac{1}{2}$  cu. ft.

*No. 16. Equipped with wheel guard instead of tips. Otherwise the same as the No. 10A*



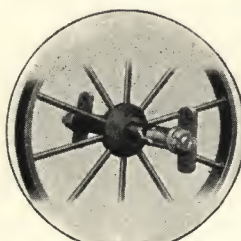
## No. 6 Concrete Cart.

Strongest construction. The entire tray is made of 12 gauge steel, reinforced at top edge with a continuous  $\frac{1}{2}$ " rod. The tray steel is crimped over the rod. The handle extends full length of the tray, providing additional reinforcement to the tray sides. The axle brackets are of malleable and of extra large and heavy design. Wheels are 42" diameter, equipped with grease cups. Short sturdy legs.

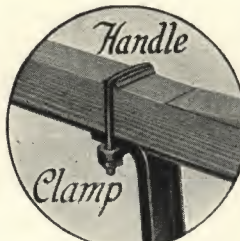
| Width              | Length | Height | Weight   | Capacity  |
|--------------------|--------|--------|----------|-----------|
| 39 $\frac{1}{2}$ " | 57"    | 42"    | 246 lbs. | 6 cu. ft. |



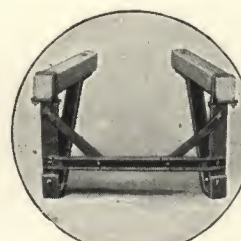
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10 Spoke Wheel Extra Rigidity



Gives Added Strength And Service



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# SMALL HOME ARCHITECTURE

THE home builder of today has a distinct advantage over the home builder of ten years ago. He is not confined in his choice to such simple types of architecture as the aeroplane bungalow, the plain square house with open porch and unadorned Colonial design. Today, there is not a style of home architecture but what has been adapted to the small home field. Spanish Mission bungalows, Italian villas, Tudor and Elizabethan manor houses and Georgian mansions all have prototypes in the small home field. Nor does this mean that small replicas of large houses have been made. Rather, the architectural principles themselves have been altered and modified to suit the requirements of the small home with the result that the artistry and beauty of all styles can be had in any size house he may desire.

With a wide range to choose from the home builder should be exceedingly careful in the selection of the style of architecture for his new home. He should bear in mind first of all his own wishes and base his selection as far as he can predetermine it on the type of home that will be permanently satisfying to him. In other words, if a certain home has caught his eye, he should relinquish this momentary attraction in favor of the home that will wear well. He should visualize the completed home as it will appear in the setting he has selected for it and be governed accordingly. His selection of the style of architecture should be arrived at not only from the outward appearance, but from the interior arrangement as well. Style in architecture applies to the distribution of space on the inside as well as to the structural and æsthetic values of the exterior.

To be sure most people know what kind of a home they want before they begin to build. Then the next and undoubtedly most important step of all for them is to acquaint themselves with the requirements of the style they have chosen. The average person shies from any set of rules for building a home, believing thereby, to lose all personal touches. This is a fallacy to be promptly corrected, as there is sufficient flexibility in any style for the free play of one's taste. Adherence to a style in

general simply means avoiding confusion and subsequent disappointment in the completed home. If harmony of effect, as well as economy of building, are to be obtained, certain fundamental principles must be known and followed. It is well to remember that no style of architecture is the arbitrary creation of any few people. Rather, its perfection is the result of generations of slow and painful labor. It would be folly not to take advantage of this experience.

Then what appears at first to be a very simple and unimportant matter proves upon further investigation to be full of complexities and of further importance. It is easy enough for one to tell a builder that he wants a certain kind of a house and let it go at that. But it is easier to plan carefully beforehand and be sure of getting the kind of a house he wants. If he is to have the utmost satisfaction and save the most money, it would be well to decide upon the type of home with the following things in mind: kind of materials available, and here the builder of today has a tremendous advantage over the home builder of ten years ago; the setting in which the home is to appear, and this means not only the plot of ground on which the home is to be placed, but a consideration of the types of architecture of the neighboring houses; a style of architecture which is adaptable to the actual living requirements as well as appealing to the eye; the prefiguring of what one's ideas of home will be in years to come, for most people cannot afford to trade in their homes as they do their automobiles; the keeping of an eye on the appropriation, for it is true that some types of homes are more expensive to build than others.

Under their respective headings a brief description of the salient features and advantages of the leading styles of home architecture will follow. Space does not permit an extensive treatise which could well be written on each type of home. It has simply been attempted to point out in a concise way certain fundamentals of each type, which, if kept in mind, will go a long way toward preventing discord and disappointment in the finished home.



# COLONIAL

COLONIAL architecture is more closely associated with American history and traditions than any other type of architecture. A brief review of the famous dwellings to which Americans look with pride will show them to be in one Colonial style or another. So closely has the Colonial home been interwoven with American Life that it is only within recent years that a family of culture would consider anything else. Nor must we think that all houses looked alike, for in its wide and extensive use different kinds of Colonial houses developed. Colonial houses flourished in New England, in New York, in Virginia and the South and in the North under diverse climates and conditions. As necessity is the mother of architecture, it was inevitable that Colonial architecture should develop along various lines.

Notwithstanding the close association of Colonial architecture with American home life and the fact that it has taken on various forms, it has one common and foreign source. The style was directly borrowed by the American Colonists from Georgian England, whose architects in turn looked to Greek and Roman models for their inspiration. Knowing this ancestry, it is not difficult to understand the emphasis upon horizontal lines, the simple divisions of interior space, the application of Classic orders, the comfortable impression of compactness and the exceeding economy of the style. The use of flat pilasters and columns which are part and parcel of the Southern Colonial style have also obviously their Classic models. Nor was it a simple task to adapt the cold, monumental architecture of the Greek and Roman public buildings to home use. We have to thank the particular genius of Englishmen of the Georgian period for making this style flexible and warm and at the same time retentive of all of its ancestry. One has only to look at the old Georgian houses to ascertain this.

While the American colonists copied the Georgian style in general, they were not content to leave it untouched, and many of the delightful features of Colonial architecture are their innovations. Such indispensable accessories as brass knockers, cut glass door knobs and old gilt mirrors topped with their bold eagles were the devices of our forefathers. The double twist in the newel post, the dark mahogany hand rail and the frequent application of shutters are also American in origin. A comparison of New England and Southern Colonial homes with the pure Georgian houses will help to convey the extent which Americans have altered, and in some ways refined upon their original English models. Excepting the architectural principles themselves there is very little of the old English houses in either New England or Southern Colonial homes.

As has been pointed out, local conditions play a tremendously important part in the shaping of an

architectural style. Thus we see two different styles of Colonial architecture in New England and in Virginia and the South which are designated as New England Colonial and Southern Colonial. The difference in the climate shows its effect upon the height of ceilings, high ceilings being required in the South because of the heat. The local supply of material accounts for the fact that New England Colonial homes are almost variably built of wood siding, while the discovery of excellent beds of clay in Virginia caused brick to become popular there.

The Southern planter, being the wealthier man, indulged in the use of Classic orders with greater profuseness, as is evidenced by the colonnade which extended through two stories, an outstanding characteristic of the Southern Colonial home. He was also able to place the kitchen and servants' quarters in adjoining structures, thus permitting the retention to the fourfold division of rooms on the first floor. The practical New Englander, on the other hand, converted one entire side of the first floor into a large living room and had to refrain from the privacy of outbuildings because of the much higher fuel consumption. Other necessities caused other distinctions



*New England Colonial*

in style, so that we have come to look upon the Southern Colonial and New England Colonial as two different types of architecture altogether.

In spite of these outward differences, the essence of classic architecture is retained in both. The emphasis upon horizontal lines, the economic use of space, there being no cozy corners or nooks, the simple dignity withal, are seen in both. Because of its simplicity and subsequent economy and because it is a type of architecture proven by our countrymen, it deserves serious consideration from the prospective home builder. He may be sure that he will never tire of his Colonial home, that its charm will be lasting and that it will mellow with age. And what a cultural environment it provides for the raising of a family.

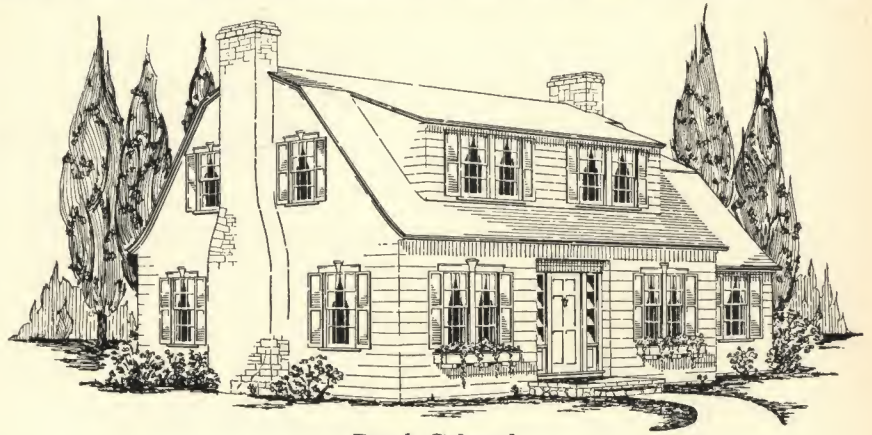


# DUTCH COLONIAL

**W**HILE the term "Dutch Colonial" conveys a definite type of house to almost everyone, the name itself is misleading. "Dutch" does not refer to Holland and "Colonial" has no direct relationship with Colonial Architecture. This type of home takes its name from the Dutch Colonists who settled in the lower parts of New York and New Jersey. There they lived for many years in warm and cheery comfort. The Dutch Colonial house conveys to us this rich domesticity and love of good living.

The most characteristic feature of the Dutch Colonial style is the gambrel roof—so much so, in fact, that "gambrel" and "Dutch" have become synonymous. The legend goes that this low, sweeping roof, with its dormer windows, was the ingenious means by which the Dutch Colonists evaded the heavy tax on two story houses. And there is today a practical advantage over the two story house in the saving of materials without the loss of space. The extraordinary flexibility of the style makes it possible for one to arrange the interior to suit his taste and still be assured of an harmonious exterior. One wing or two can be added without disturbing the gentle contour. One can compare this flexibility to Colonial types where there is harmony without freedom, and to English types where there is freedom without definite symmetry.

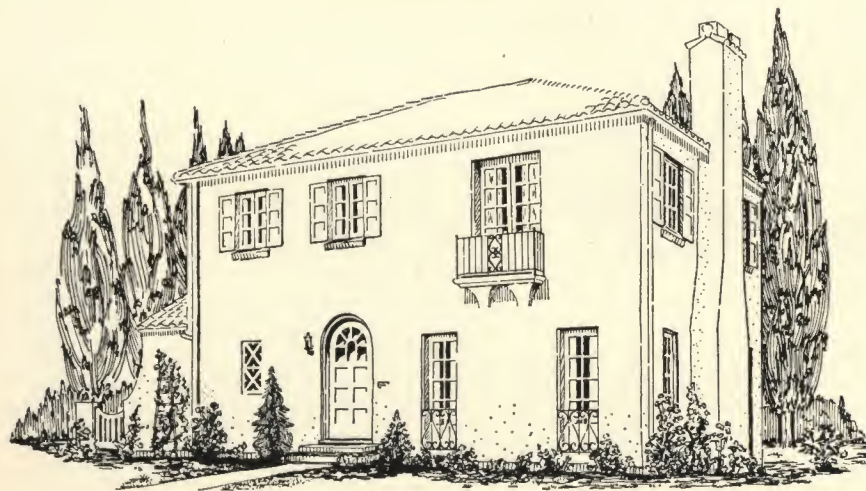
If a man decides to build a Dutch Colonial home he should keep some things constantly in mind. First, the best types are long and low and set close to the ground. Secondly, the dormer window should be considerably narrower than the first story. Lastly, it can be equally well executed in shingles, siding and brick, but it is not advisable to mix them up. The narrow, high, top-heavy kind is to be avoided if one is to be true to precedent. Above all let it ramble, for the Dutch Colonial home is nothing if not picturesque.



*Dutch Colonial*

# ITALIAN

**A**LSO in the Classic tradition is Italian home architecture. The straight walls and simple proportions and the fine sense of balance show the observance of Classic principles. But there is a new spirit embodied, a spirit of luxury, of color and of freedom from rule. It is the spirit of the Renaissance. New blood has been poured into the old forms, the Classic has become Neo-Classic, the rules cease to be confines and become points of departure. The decoration is no longer cold, standardized and customarily applied. It is rich, varied and natural, as much a part of the house as the walls and floors.



*Italian*

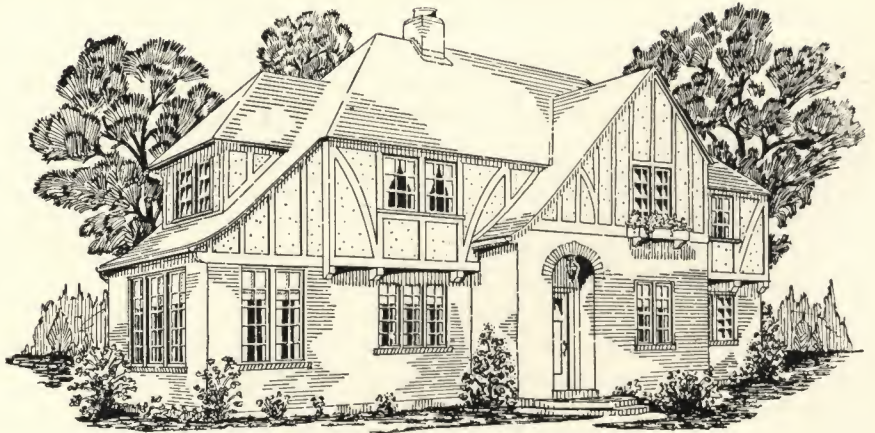
The Italian home has many practical as well as aesthetic advantages. The floor plan is not forced into a rectangle, as in the Colonial home. Nor do the windows have to be placed in regular positions. Stucco is the usual material used, but stone, brick and concrete blocks can be employed with equal propriety. The style is economical, regardless of material used, because of its exceedingly simple lines. For one who wants a dignified departure from the ordinary, and a colorful and inspiring environment to live in, the Italian style is recommended.



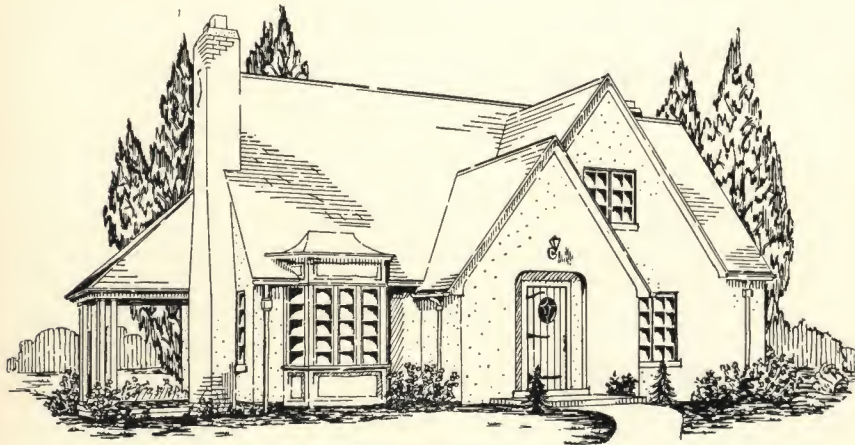
# GOTHIC OR HALF TIMBER

THE soaring, evanescent spirit of Gothic architecture seems to have little to do with domestic buildings. And in actuality it is impossible to find such salient features as high vaulted ceilings, delicate buttresses and real stained glass windows short of a mediaeval castle. Yet if we look at it in a broader way, if we remember that the desires for buoyant freedom, for romance itself is at the core of Gothic architecture we can find some domestic expressions of it. Chief among these are the half timber houses of Tudor and Elizabethan England.

The principle behind the Gothic home is one of frankness. That is the exterior is a frank expression of the interior. The floor plan is first laid out and, regardless of its intricacy, the exterior is made to reveal what it encloses. Thus the Gothic style is the most flexible of all. Though symmetry is sacrificed it is more than made up for in the subtle balancing of parts. The finished result, if carefully watched, will be a beautiful composition of shapely architectural forms, varied wall surfaces, projecting casements and rich, decorative detail. For the expression of one's personality in a home, nothing could be more pliable, and in the end satisfying.



*Gothic or Half Timber*



*Modern English*

rooms can be arranged to suit one's self, and any deviations from the norm will but add to the charm and significance of the completed house. This is the kind of home architecture one of independent thought should use, for within its limits he can do about anything he wishes with the assurance that it will be satisfying in the end.

## MODERN ENGLISH

THE exodus of city people to the country, the growth of suburbs and small towns, in short the prevalent desire of Americans for a democratic, open air existence, is mainly responsible for the wide use of the Modern English Plaster house. This type of home is easy to build and looks well in any surroundings. It can be attractively executed in brick, shingles and siding, as well as stucco. It can be designed to look well on any size lot. And its flexibility permits practically any arrangement of any size rooms.

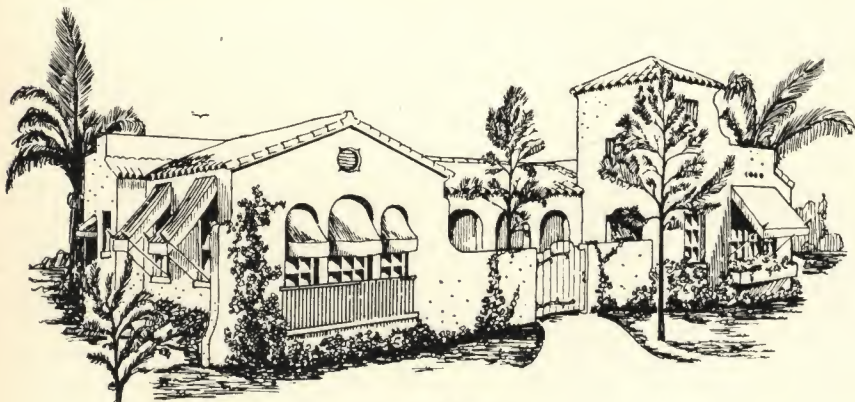
Specifically, the Modern English home is built from the inside out. The starting point is usually the laying out of the large living room. The next step is to make the other units, such as kitchen, dining room and reception hall balance. The upstairs rooms are arranged so as to keep a balance with the first floor. The beauty of this is that the

beauty of this is that the

## SPANISH MISSION

NOTWITHSTANDING the intense and widespread popularity of the Spanish Mission home, it is fundamentally a home for warm climates. Its thick walls, patio and low pitched roof are architectural means of avoiding excessive heat. It has been adapted, and with some success, to meet the long and severe winters of the north, but there is something incongruous in seeing a low pink stucco dwelling with a brilliant tile roof covered with snow. And to be consistent with the style and have a spreading home with an open inner court would present a heating problem not easy to solve.

This inner court, or patio, is the most distinctive feature of the Spanish Mission style. For its inception we must look to the Spaniard's innate desire for privacy and later



*Spanish Mission*

to the California Missionaries' need for protection. The need for this sort of protection is no longer necessary, but privacy is still to be desired. What an improvement this is over the flagrant American front porch. The patio has an added architectural advantage in permitting any number of any size rooms. Furthermore, this makes it possible to segregate the kitchen, dining room and private bedrooms. A purely decorative but none the less necessary feature is the small belfry, a remnant of the old California Mission. It gives an interesting perspective to an otherwise plain exterior. It is wise, however, to retain the simplicity of the style and not attempt too much ornamentation. The true beauty of this style as well as all other styles of home architecture is to be found in the balance, contour and integral parts of the structure itself and not in loose adornment.



# A HOME OF YOUR OWN

*Suggestions That Will Aid You in Building the Home of No Regrets and Enable You to Realize One of Life's Fondest Dreams.*

To every man and women there comes a time when their keenest desire is for a home of their own—a plot of ground that will blossom in springtime with cool, green lawns and bright, sweet-scented flowers, and a house which, however modest, will express in its design and arrangement their own ideas of what a home should be.

Rent is tribute that the serf paid to the Lord of the Land—or "landlord" as we call him nowadays. Live in a rented house ten years and you pay the full value of it without ever owning a stick or stone of it. Build your own home and the same amount of money you formerly paid for rent will pay for your house.

If the rented house you live in increases in value your landlord reaps the profit—not you. If the house you build for yourself is well built and the location wisely chosen, you can live in it rent free for ten years and then sell it for more than it cost you.

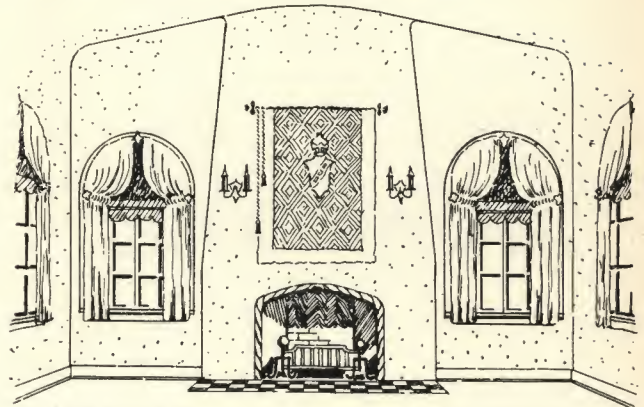
## Individuality in Small Homes

With unlimited means it is easy for one to have a beautiful and distinctive home, but to design a small, moderately priced house that doesn't resemble the other houses in the neighborhood is something of a problem.

Every home builder yearns for a house that is different from ordinary houses, that possesses distinctive features—a house that people will notice and admire—and this desire is not due to pride alone but to common sense, for such a house will command a better price should the owner ever wish to sell it.

## Distinctive But Not Expensive

The houses illustrated in HOME BUILDERS CATALOG possess to an unusual degree a charm and individuality rarely found in moderately priced houses. As you turn the pages you will realize that they have been designed by men who are not only



FIRE-PLACE BUILT IN END WALL OF LIVING ROOM

familiar with every kind of building material and the most approved methods of building construction, but who are responsive to the charm of pleasing proportions, to the beauty of harmonious color combinations and to that touch of originality that challenges admiration.

The homes illustrated in this volume are the last word in up-to-date style and convenience, yet so perfectly are they designed that not an unnecessary dollar of expense is incurred. The price range is from \$3,500 to \$12,500, covering the needs of the great middle class of home-builders. Ninety percent of all homes built in this country fall within these price limits.

Careful attention has been paid to those details of design and construction that give distinction, charm and convenience to the home—such things, for instance, as big, bright living rooms with open fireplaces; conveniently arranged kitchens with built-in features and breakfast nooks; bedrooms with disappearing beds and private bath; bright, cozy, sun parlors and cool, shady porches.

## Six Hundred and Four Attractive Designs

(Ninety-six of Them in Colors)

The present (1927) edition of HOME BUILDERS CATALOG is practically a new book. Of the material used in the 1926 edition only a small part has been retained. Some of the houses illustrated in the 1926 edition have proved to be so popular that it was deemed wise to include these in the present

edition, but all designs for which there was not a considerable demand have been omitted and replaced by new designs more in keeping with prevailing styles of architecture and interior arrangements.

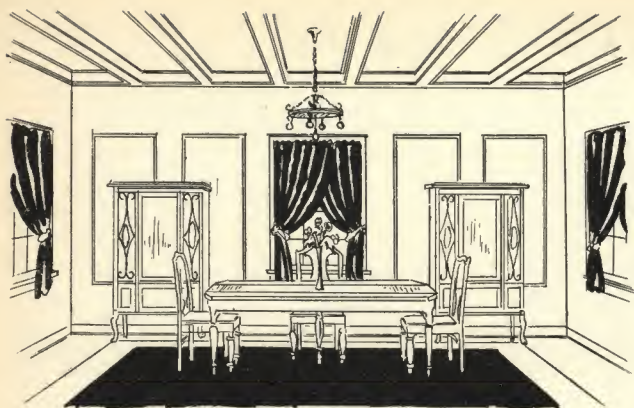
In addition to five hundred and eight designs in black and white a ninety-six page color section is included in this edition of HOME BUILDERS CATALOG, a new feature that will greatly aid one in visualizing the appearance of the completed home. Color is now such an important factor in the appearance of the home that these pages will be constantly referred to by those wishing to see the effect of various color combinations in frame, brick and stucco houses.

During several months last summer a representative of HOME BUILDERS CATALOG visited the principal countries of Europe, collecting data on English Cottages, the half-timbered houses of France and Germany and the Mediterranean types of dwellings typified by the stucco homes of Spain and Italy—a style of architecture now very popular in this country, par-



FIRE-PLACE LOCATED IN NOOK





DINING ROOM WITH BEAM CEILING

ticularly in California, Florida and other Southern states. This edition of HOME BUILDERS CATALOG is, therefore, particularly rich in designs based on Old World models, though in every case the interior arrangements have been modified to conform to the higher standards of comfort and convenience demanded in America.

No matter what your preference may be, whether for the ever popular American or Dutch Colonial home, the English Cottage type of house, the Italian Villa, the Spanish Bungalow, or the income-producing two-family house, you will find it in HOME BUILDERS CATALOG. Sit down some evening with this intensely interesting book before you and when bedtime comes you will say that never have you spent a more pleasant and profitable evening. Even if you are already a home-owner you will find much of interest in this volume, for it suggests ways to improve your present home and contains many plans for attractive garages, summer cottages and similar small structures.

### Every Home Illustrated Has Actually Been Built

It will be noted that every illustration in HOME BUILDERS CATALOG is reproduced from a photograph. You see the completed home itself, surrounded by trees and shrubbery. You are not obliged to imagine how it will look with nothing to aid you but a sketch.

Every home shown in this volume has already been built—some of them many times. The plans have been put to the acid test of actual construction. Nothing has been left to chance. You can, therefore, use any of these plans with perfect confidence that the house built from them will be in every respect identical with the illustration.

### Choosing the Plan

The choice of a home is a good deal like choosing an automobile. Most of us buy not the best automobile made but the one we consider best for the price we can afford to pay. It is the same in building a home. Many houses that we would like to have cost more than we can afford. The first thing to decide, therefore, is how much you can invest in a home. If your limit is \$5000, then you must make up your mind to do without many things that you could have in a home costing \$7500 or \$10,000.

There is this advantage, however, in building the less expensive home—it will be easier to sell whenever you are ready to build a more costly one, for

there are more families—a great many more—that can afford to buy a \$5000 house than there are families that can buy a \$10,000 one.

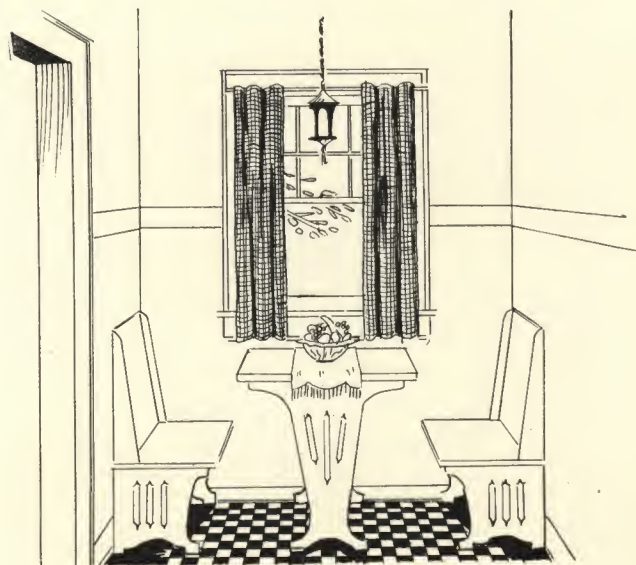
The possibility that you may one day wish to sell should always be borne in mind. Remembering this, you will build a house that is constructed of thoroughly good materials so that it will still be in good condition years hence, and in selecting a design you will choose one that does not depart too radically from accepted standards, for houses that embody ideas the owner thinks highly original are sometimes considered freakish by other people and are not easy to sell.

### Why Good Materials Should Be Used

The principal reason for using good materials is that they cost less in the long run than poor materials. When you are tempted to buy any kind of building material or home equipment merely because it costs less than materials or equipment of better quality remember that the real cost is not what you pay now, but is *first cost divided by years of service*.

Roofing material that costs \$500 and lasts 20 years without repair costs you only \$25 a year and is a better buy than roofing that costs only \$300 but must be renewed at the end of ten years with, perhaps, also a repair bill or two before complete renewal becomes necessary.

Don't try to reduce the cost of the house you build by using poor materials—it can't be done. In the end you will pay more than if you use good materials in the first place. If economy is necessary build a smaller house, or omit some of the things you would like to have but can do without. A screened porch, or a sun parlor, is a nice thing to have, but many people manage to get along without them. It is better to omit the porch and sun parlor (which can always be added later) than to try to save money on foundations, walls, floors, roofing, heating plant, plumbing or electric equipment. These are the things on which the wearing qualities and the comfort of the home depend, and it is false economy to use poor materials and construction for the essentials for the sake of having money to spend on features which, however desirable, are not absolutely necessary.



A COSY BREAKFAST NOOK



# Plans, Specifications and Building Contract

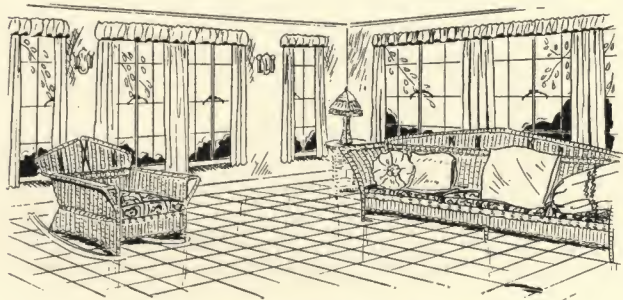
*Building Plans* are pictures showing the size and arrangement of the rooms, the location of stairs and chimneys, doors and windows, the form and pitch of the roof and all other details of construction that the building contractor must have in order to erect such a house as is shown in the plans.

*Specifications* are written instructions telling what materials are to be used and how they are to be used.

*The Building Contract* is a legal agreement between the home builder and his building contractor in which the obligations of both are set forth, the contractor agreeing to build the house according to the plans and specifications within a certain length of time and the home-owner agreeing to pay certain sums of money from time to time as the work progresses.

All three of these—Plans, Specifications and Contract—are necessary in order to insure the house being built according to design and to prevent misunderstandings.

From the plans alone the contractor cannot estimate the cost of the house any more than a dress-



SUN PARLOR WITH TILE FLOOR

maker could tell you what a dress would cost if you merely gave her a dress pattern without telling her what materials to use.

The Plan Service available to subscribers to HOME BUILDERS CATALOG is the most comprehensive and practical ever devised for the benefit of home-builders and building contractors.

Two sets of complete working blue-print plans of any house or garage illustrated in this book will be furnished for \$20. With the plans we furnish free one 16-page Classified Guide for listing materials, two sets of Specifications and two Building Contracts.

Each set of plans consists of three sheets, showing all floors plans, including basement, together with front, rear and side elevations, all drawn to scale of  $\frac{1}{4}$ " to the foot. Plans also include many details of construction, cross sections, and other drawings necessary to enable builder to erect house exactly as illustrated in HOME BUILDERS CATALOG.

The 16-page Material List Guide is divided into sections covering foundation material, lumber, mill-work, roofing, flooring, hardware, paint, etc. Nothing is omitted. If the builder uses this list he will be sure that every essential item is included in his estimate. Saves hours of time and prevents costly omissions.



A MODERN CLOTHES CLOSET

The Specifications (two sets) have been prepared by experienced architects and builders. Everything is set down in black and white—nothing is left to the imagination. Exact specifications such as these prevent misunderstandings and insure the house being built of proper materials and in a thoroughly workmanlike manner.

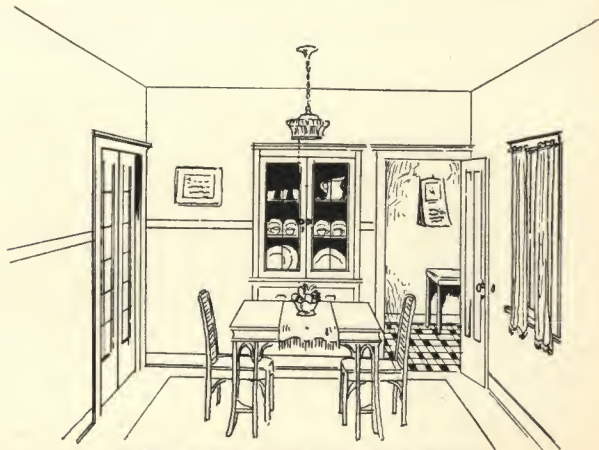
The two blank, legal contract forms, to be signed by building contractor and owner, put the agreement on a sound, legal basis and save lawyer's fee for drawing contract.

All of these four things—the blue-print plans, the material listing guide, the specifications and the contract forms—cost but \$20.

## Changes in Floor Plans

The floor plans shown with each photographic illustration of the completed house are those that experience has shown to be best suited to that particular type of house. Nevertheless, it sometimes happens that minor changes are desired—an additional closet, for instance, a downstairs toilet and lavatory, a sun parlor addition, or an attached garage. Any change desired that does not radically alter the design of the house can be made at a very nominal cost.

The Architectural Department of HOME BUILDERS CATALOG will also prepare plans to order, based on your own rough pencil sketch. The charge for this service depends on the number of rooms, averaging about seven dollars per room, with a minimum charge of twenty-five dollars. Full particulars of this individual plan service will be furnished on request.



DINING ROOM IN COTTAGE HOME



# Borrowing Money To Build

## Financing the Home

Very few of the people who build homes are able to pay for them outright. Nearly always the home builder buys and pays for a lot and borrows money to build the house. The money borrowed is secured by a special kind of promissory note known as a *mortgage*, in which the borrower promises to repay the principal sum of the loan within a specified time (usually three to five years), with interest—usually 6 percent for first mortgages and 7 percent, or more, for second mortgages. If the interest is not paid regularly, or the principal is not paid when due, the lender of the money may compel the property to be sold at public auction, taking from the proceeds of the sale the amount due him, the balance (if there is any, after deducting legal fees and other expenses of the sale) going to the owner of the property.

To avoid difficulties in the repayment of the loan the home builder should not invest in the house he builds a greater sum than is justified by his income. The man who pays \$50 a month rent should build a home costing not more than \$6000. If you can afford to pay \$75 or \$100 a month to a landlord you can afford to build a home of your own costing \$9000 or \$12,000. In general the cost of the home one builds should about equal 120 times the monthly rent paid—that is to say, the sum that your monthly rent would amount to over a period of 10 years.

## Borrowing from Banks or Building Associations

Loans for home building (secured by a first mortgage) are made by banks, by individuals (usually operating through a mortgage broker), by some life insurance companies and by building and loan associations.

The building and loan associations have enabled hundreds of thousands of people to build their own homes by making it easy to borrow money for this purpose and easy to repay the loan. The members of a building and loan association are divided into two classes—lending members and borrowing members. Those who deposit a fixed monthly sum with the association (without borrowing) receive a good rate of interest on their deposits, while those who borrow to build homes pay interest.

If you are thinking of building a home some time in the future it is a good plan to join a building and



A COSY CORNER IN LIVING ROOM

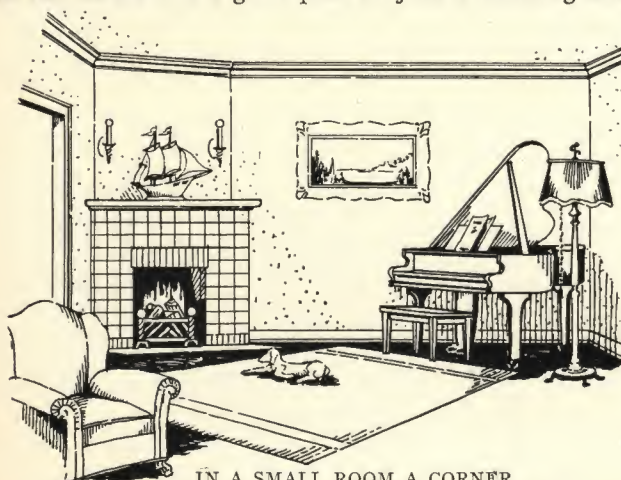
loan association at once and start making regular monthly deposits. The interest on these deposits will increase your savings and the sum you save before beginning to build will reduce the amount of money you will be obliged to borrow, which, in turn, will decrease the amount you have to pay as interest on the loan.

When you borrow from a bank, or an individual, the principal amount of the loan is payable in a lump sum at the end of three years, or five years, or whatever may be the term of the mortgage. During the whole of this period you pay interest on the total amount borrowed. But building and loan associations have devised an easier way of repaying the loan. You pay a fixed sum each month—\$50, \$60, \$75 or \$100, according to the size of the loan—and this payment not only keeps the interest charges paid up but reduces month by month the principal amount of the loan so that each year you have less interest to pay and a greater portion of your monthly payment is applied to repayment of the loan itself.

Moreover, instead of having to repay the loan in from three to five years, building and loan associations usually spread the monthly payments over a period of ten or twelve years, making the monthly payment about the same as you are accustomed to pay for rent. Thus, instead of paying rent to a landlord for ten or twelve years and having nothing to show for it at the end of that time except a bundle of rent receipts, you pay the same sum monthly to your building and loan association and at the end of ten or twelve years have a house and lot of your own free of debt.

## Methods of Repayment

Methods of repayment of loan differ with different building and loan associations but the principle is the same, namely, the gradual repayment of the money borrowed by means of easy monthly installments. A further advantage of a loan that extends over a long period of years is that the loan does not have to be renewed. One always has to pay a premium to the lender, in addition to the interest, and there are legal fees to be paid for examining title,



IN A SMALL ROOM A CORNER  
FIRE-PLACE LEAVES MORE SPACE FOR FURNITURE



bringing abstract down to date, etc. These premiums and legal fees are usually charged by building and loan associations, as well as by banks and mortgage brokers, but they are apt to be smaller and are paid but once, whereas if the loan is only for three to five years several renewals of the loan may be necessary and at each renewal the borrower must again pay premium and legal fees.

While one should not borrow more money to build a home than he can conveniently repay, there is this advantage in borrowing some money—the lender (bank or building association) has able lawyers in its employ and experienced appraisers and these real estate experts will carefully examine the title to the lot and appraise its value before loaning money on the property.

If a bank or building association is willing to loan \$5000 on a house and lot you may be sure the title is good and that the property is worth from \$7500 to \$10,000, for loans on first mortgages are seldom made for more than one-half to two-thirds of the actual value of the real estate.

### Second Mortgages

Second mortgages should be avoided if possible. A second mortgage is like a first mortgage except that the security is not so good for, in the event of foreclosure, the first mortgage is paid in full and the holder of the second mortgage gets what is left. Hence second mortgages are not made by banks, or building associations or other conservative lenders but must be obtained from people who specialize in second mortgage loans. Because of the greater risk a larger premium and a higher rate of interest is demanded on second mortgage loans than on first mortgages. The better plan is to wait until you have your lot paid for in full and have \$1000 in the bank. Then with a lot worth, says, \$1500 and \$1000 cash available for the first payment to the building contractor you can easily borrow on first mortgage \$5000 more to complete the house. In other words, before commencing to build you should have in cash (or in cash and real estate) at least one-third of the total cost of house and lot.

### Fire Insurance

In order to protect yourself against loss by fire while the house is in course of construction you should arrange for a fire insurance policy which automatically increases as the building progresses. Such policies are issued by all fire insurance companies. It should be remembered that fire insurance policies do not insure against damage by lightning (unless fire results) nor against damage from wind, flood, earthquake, or any other cause except fire. But all of these risks can be covered by special insurance policies for a sum of money that is insignificant compared to the protection afforded, and the peace of mind resulting

from the knowledge that the home investment is safeguarded.

### Accident Insurance

Accident insurance should also be provided. Be sure that the building contractor employed carries Employees' Liability Insurance. It is also well to incorporate in the building contract a paragraph placing on the building contractor responsibility for injuries which may be suffered by pedestrians or motorists due to dropping of building material by workmen, failure to safeguard excavations, or to remove obstructions from sidewalk or street, or to properly light same at night. If the building contractor is not willing to assume this obligation get a casualty insurance policy of your own. Such a policy costs little and protects you from the worry and expense of a lawsuit should anyone be injured on your property while your home is being built.

### Life Insurance

Life insurance should also be provided to insure the payment of the mortgage. What is known as "term insurance"—that is to say, a policy which runs for only five or ten years—is the cheapest form of life insurance written. If you have borrowed \$5000 to build your home insure your life for an equal amount and thus make sure that, should anything happen to you before the mortgage is paid, your family will receive from the insurance company a sum of money sufficient to pay off the mortgage on the home.

Some life insurance companies are now lending money to home builders on first mortgage and making the cost of an insurance policy a part of the loan. The monthly payments on the loan are so arranged that all interest charges, insurance premiums and a small part of the principal of the loan are all included in each payment. Thus by paying a fixed sum each month you gradually pay off the loan, and should you die before payments are completed the insurance provides funds for canceling the mortgage on the property.

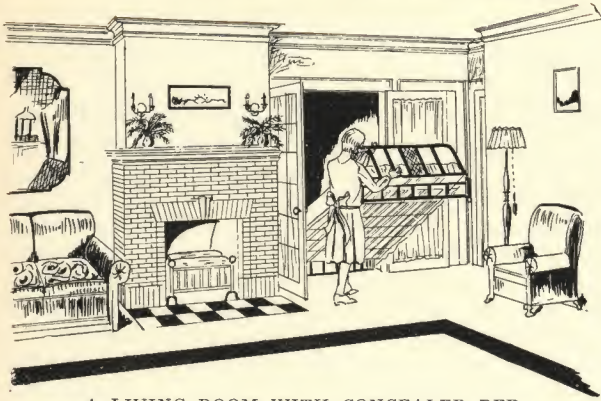


A SUN ROOM

*In practically all states building and loan associations are now under state supervision, like savings banks. A letter addressed to "Auditor of Public Accounts, Building and Loan Department," at your State Capitol will bring you information regarding associations in your locality. Information can also be secured by addressing the national association—"U. S. Building & Loan Association League, 22 East 12th Street, Cincinnati, Ohio."*



# Selecting the Home Site



A LIVING ROOM WITH CONCEALED BED

Even the best of houses will be unsatisfactory if it is not well located; therefore, choose with care the lot on which you build your home. Cheap lots nearly always have objectionable features—which is why they are cheap. You should not pay more than a fair market value for the lot you buy, but on the other hand, if you pay less you may be sure that there are good reasons for the lower price.

These are some of the things to consider when choosing a site for your home:

## Accessibility

- 1—Is the lot convenient to transportation, to schools and churches, and to the stores where your wife will do her marketing? If not, you will suffer inconveniences daily in getting to and from your work, your children will suffer in going to and from school and your wife will soon complain of the difficulty of getting to the shopping section and back home again. In isolated communities, where there are few stores, prices are nearly always higher than in well settled sections where there are many stores. You spend more for carfare. You are cut off from your friends because it is difficult for you to visit them and for them to visit you.

A cheap lot in an unsettled community may look very attractive on a bright spring day when the real estate man drives you out there in a big, comfortable car, but figure out how you would get there by yourself on a cold winter's evening with a foot of snow on the ground. How far would you have to walk from the nearest car line? Are the streets paved and lighted? Are the neighbors the kind of people you would like to associate with? These are some of the things to consider when selecting a lot. Don't be influenced by price alone. Buying a lot for investment is one thing, but buying a lot on which to build a home of your own is an entirely different proposition.

## Improvements

- 2—Is the lot improved property or does it lack sidewalks, paved streets, street lights, sewer, water, gas and electricity? If it is not improved, then to the price you pay for the lot now you will someday have to add assessments for all of the conveniences it lacks and meanwhile you will have to provide a cistern or well for water, a

cesspool or septic tank for sewage disposal and get along without the conveniences of gas and electricity. These are serious drawbacks. The home, above all things, should be comfortable and convenient. The lot that costs only a few hundred dollars may be dear in comparison with one costing a thousand or fifteen hundred dollars if it lacks the conveniences that the higher priced lot has.

## Character of Soil

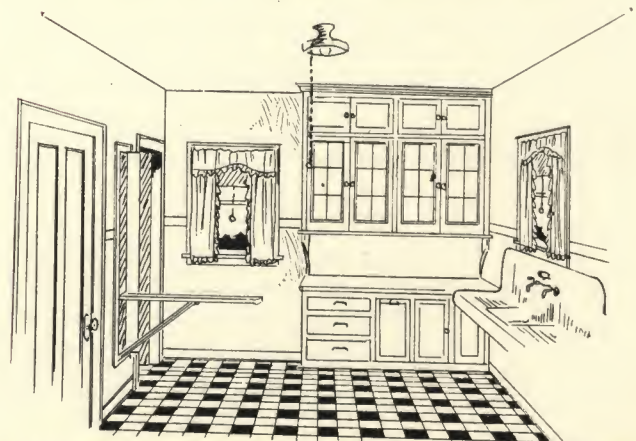
- 3—What is the nature of the soil? This is an important consideration. Sometimes a lot is cheap because it is filled-in ground. Perhaps it has been used for a refuse dump for years and a few feet below the surface you will find ashes, street sweepings, tin cans and all manner of waste material. Beware of such a lot! You cannot secure a firm foundation for your house on such filled-in ground without going down to the solid soil beneath the fill, which will greatly increase the cost of your foundations.

On the other hand, the soil may be rocky and require blasting for excavations. This also is expensive. Or it may be heavy clay which holds water unless drain tiles are laid beneath the surface to carry the water that soaks into the soil away from your foundations.

Ground that is easily excavated and that has good natural drainage is the best site for a home. Consult your building contractor, if possible, before buying your lot. He has the practical experience that enables one to see the advantages and disadvantages of different kinds of soil.

## Lay of Land

- 4—Is the lot level or of unequal surface elevations? Slight irregularities of surface are not objectionable and may even be of advantage in improving drainage and giving a pleasing variety to the appearance of the home site when planted with grass and shrubs, but deep depressions that must be filled, or elevated portions that must be leveled, add to the building costs.
- 5—Are the neighboring houses attractive and in a good state of repair? And is their value about the same as the house you propose to build?



A KITCHEN WITH BUILT-IN CABINET AND IRONING BOARD

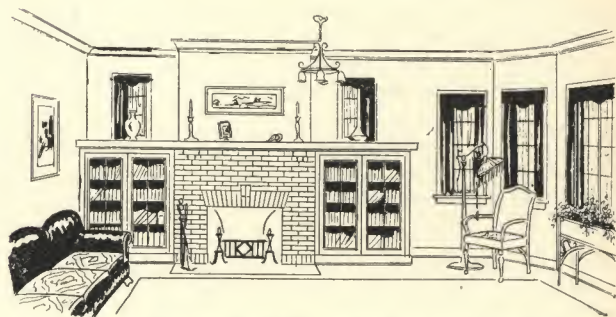


These are important considerations, for one house, however good, does not make a neighborhood, and the ultimate value of your own property will be influenced by your neighbors' houses. Select, if possible, a lot in a neighborhood that is still in the process of development. The houses that will be built in such a neighborhood will be modern and much more attractive and desirable than the older houses in a more settled part of the town. This will make your neighborhood a desirable section in which to live and will enhance the value of your property.

Do not build a house that is either much cheaper or much more expensive than the neighboring houses. A \$20,000 house in a community of \$10,000 homes is difficult to dispose of if you should wish to sell later on, and so is a cheap house in an expensive neighborhood. People like to live among neighbors whose living expenses are about on the same scale as their own, so build a house that is appropriate to the locality you select for your home.

- 6—Is the lot bare or wooded? A few fine old trees around a home not only add greatly to its charm, but increase its market value. It takes years to grow a good shade tree, so if you can find a lot that has some good trees on it you are in luck.
- 7—Is title to lot clear? This is a matter for your lawyer. Be sure that abstract of title is carried back to the original government grant of land

and down to the present owner, and that there are no unsatisfied mortgages or other claims against property or unpaid taxes or assessments. In most cities verification of title to real estate is now handled principally by Title Guarantee Companies. These companies not only perform all legal work incident to transfer of possession but guarantee the title to their client, agreeing to defend at their own cost any suit brought against the property and to indemnify the owner against loss due to defective title up to a specified amount. The fee charged for guaranteeing title is very small. Get a guaranteed title to the lot you buy by all means, if possible, not only for your own peace of mind but because your property will be easier to sell, should you ever wish to dispose of it, if title is guaranteed by a responsible company.



A FIRE-PLACE WITH MANTEL AND BUILT-IN BOOK CASES

## Locating House on the Lot

On a narrow city lot the location of the house is restricted to a small area and about the only question that will arise is whether the house should set back from the street and, if so, how far back. This is sometimes provided for in local building regulations or by a clause in the deed. In the absence of restrictions it is well to follow the example of one's neighbors, locating the house so that its front wall is in line with the front walls of adjoining houses.

But when the lot is a large one the question of locating the house on the lot becomes more important for, of several possible locations, there is always one that is better than any of the others. By driving four stakes in the ground, marking the four corners of the house, and shifting these stakes from one spot to another, it is possible to compare the advantages and disadvantages of each possible site. Sometimes by shifting the house a few feet in one direction or another it is possible to bring some attractive feature of the grounds in line with the windows or to conceal some unattractive feature from view. The slope of the land may influence the selection of the building site because of better natural drainage away from the house, or the presence of some fine old trees on the lot, that you will wish to preserve, may be a deciding factor in locating the house on the lot. Weigh one thing against another, considering the question from all possible angles, for when once the building operations are begun it will be too late to change your mind.

It is generally unwise to locate the house in the center of a large lot, unless you have a frontage of at least 150 feet. With a 100 foot lot, locate the house on one side or the other, keeping the balance clear for lawns, shrubbery or flowers, which always

appear to better advantage when massed than when they are scattered in small patches over the lot. This plan has the further important advantage that you keep intact 50 feet of your lot, which some day you may sell at a good profit, thus reducing the cost of your home.

Bearing in mind that every new house erected in a community increases the value of neighboring property, it is well to buy more land than you actually need for your house (if you can afford to do so) so that you will profit by the increased values that the house you build helps to create.

The boundary lines between your own lot and the property adjoining it on either side should be verified by a survey before you begin to build. Do not accept existing fences as boundaries—they are often misplaced. The same survey will establish the bench mark, or grade, of your lot. With the aid of this information the building contractor will know how far below the surface the sewer pipes lie and will not (as has occasionally happened) place the laundry tubs in the basement so low that the sewage sometimes drains into the tubs instead of the tubs draining into the sewer.

No building should be placed nearer than 18 inches to a boundary line—24 inches is better. This is because the roof eaves, window sills, window blinds and sometimes windows (if they are of the casement type and open outwards) project beyond the wall of the building, as do the footings of foundation walls. You must not encroach on your neighbor's property either above ground nor below. Much expensive litigation has been caused by failure to observe this simple rule.



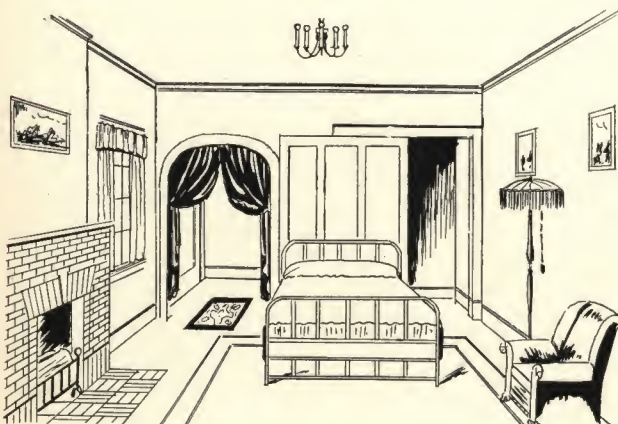
# Choosing the Building Contractor

Quite as important as careful selection of lot and plan is one's choice of a building contractor. On the ability and integrity of the contractor depends the successful translation of the blue-prints into the home of your dreams. If it is to be a real dream home and not a nightmare, choose a contractor whose reputation for good work and fair dealing is established. His price may not be the lowest bid—it probably will not be if he is a man who takes pride in his work—but so much depends on the experience and integrity of the contractor that these qualifications, not price, should be your first consideration.

Among several contractors of equal merit prices may differ somewhat. One contractor may be better equipped than another for building the particular kind of house you want, or he may not be so busy at the moment as the others and be willing to make some concessions for the sake of keeping his men employed. But a very low bid from a contractor who cannot refer you to a number of people for whom he has built houses should be looked on with suspicion.

Unfortunately, there are rascals in the contracting business as in other industries. These "jerry builders" or "fly-by-nights," as they are called, prey upon the unsuspecting home builder and, first having hooked him with a ridiculously low bid, they "scamp their work" and make a bigger profit on the job than a reliable contractor whose bid was considerably higher would have made. Then, after completing a few buildings, they move on to pastures new before their victims discover how badly they have been stung.

Nothing is easier than to hoodwink the average home builder who, as a rule, knows little or nothing of building materials or the proper methods of building construction. The substitution of lighter joists and rafters than are called for in the specifications, the use of an inferior grade of lumber or hardwood flooring instead of the better grade specified, a lean mixture of concrete for the foundations, unbraced joists and floor beams, a poor plastering job, a roof that looks well but leaks before the first winter is over—all of these things may account for a thousand dollars or more in the contract price and the home owner be none the wiser until at the end of a year or two his house begins to go to pieces.

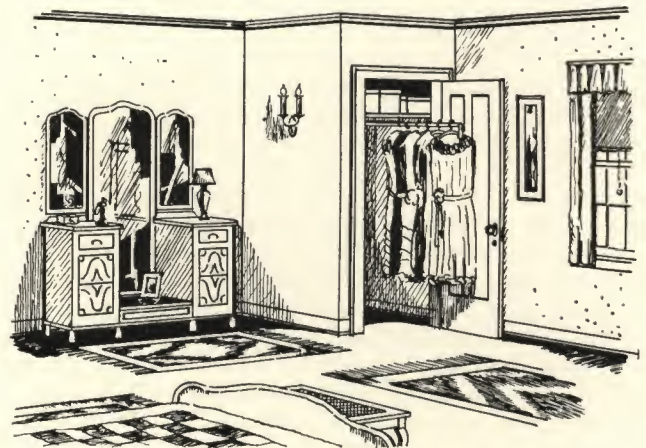


A BED CLOSET IN LIVING ROOM



CLOSET BUILT FLUSH WITH WALL

Unless you are competent to identify the various grades of lumber and other building materials and can be constantly on the job yourself to see that you get what you pay for, you must delegate this work to someone you can rely on. This someone should be your building contractor. Having satisfied yourself that he is worthy of your confidence, give it to him and pay him a fair price for his services—a price that will enable him to make a reasonable profit on the job.



CLOSET BUILT OUT INTO ROOM

It is best to give what is called the general contract to one man and make him responsible for the whole job. The general contractor, who is usually a mason contractor, or carpenter contractor, sublets to others the work he does not do himself—the excavating, sometimes the concrete work, the plumbing and gas fitting, the electric wiring, etc.—but supervises all this work himself to see that it is properly done according to the specifications.

You pay the general contractor for all work done according to the terms of your building contract with him and he in turn gives you not only his own receipt but releases from the sub-contractors as well for such work as they have done. This is important, for should the general contractor fail to pay the sub-contractors, they can (in many states) compel you to pay them for their work, even though you may

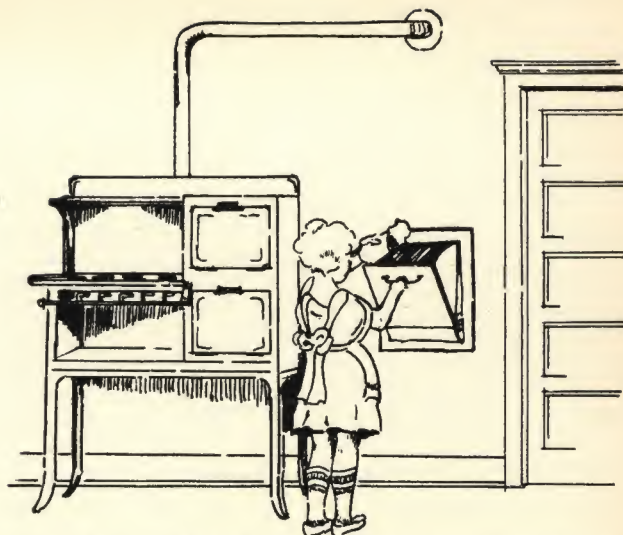


already have paid the general contractor. This has more than once been the unfortunate experience of home builders who employed a "fly-by-night" contractor and after he had collected his money and flown, discovered he had left behind him a multitude of unpaid bills which the home owners were obliged to pay themselves.

### The "Cost-Plus" Contract

It sometimes happens that because of uncertainty regarding the prices of materials or the cost of labor the building contractor is unwilling to name a fixed price for which he will do the work. Or the home builder may believe that before building operations are actually begun it may be possible to secure more favorable prices. If for any reason either party is unwilling to enter into a contract with the other on a fixed price basis, the difficulty may be overcome by what is called a "cost-plus contract." Under the terms of such a contract the building contractor acts as purchasing agent for the home builder, buying all needed materials and employing all necessary labor on the best possible terms and submitting all bills to the home owner for payment. The latter, in addition to paying the actual labor and material costs, pays the contractor for his services, a fixed percentage of the total cost of the job.

Contractors are usually very willing to enter into a cost-plus contract because it assures them a sure profit over and above the actual cost of the job, which is not always the case when they work for a fixed price, which may have been figured too low. In



DISPOSAL OF GARBAGE AND TRASH IS FACILITATED BY INSTALLING AN INCINERATOR IN THE KITCHEN CHIMNEY

other words, when the contractor names a fixed price he gambles to a certain extent on what the future cost of labor and material will be. If prices and wages decline he makes a larger profit, but if they rise he makes little or nothing and may even suffer a loss. With a cost-plus contract it is the home-builder who does the gambling and since most home owners cannot afford to speculate it is usually best for them to employ a contractor on a fixed price basis.

## How to Use This Book

Use it first to determine in a general way the type of house you prefer—American Colonial, Dutch Colonial, English Cottage, Italian Villa, Spanish Bungalow, or whatever may be the particular architectural style that appeals to you. See pages on Small Home Architecture, pages 582 to 585.

Next study the floor plans and note whether house you prefer has the necessary number of rooms, and if these are of the proper size and arranged to your liking. As there are many different designs in each of the several architectural styles you are sure to find at last a house that suits you inside and out.

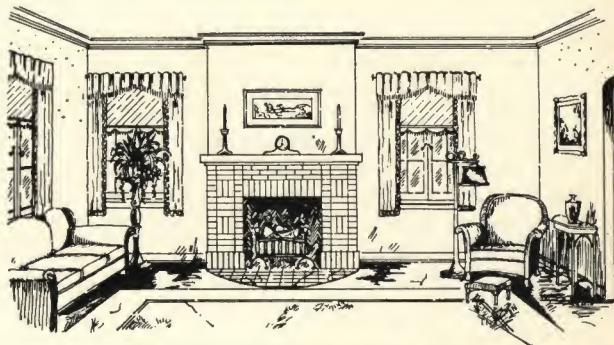
Now study from every possible angle the plans of the house selected. Imagine yourself in the kitchen and note how you would reach the front door, the stairs, the living room. If your personal preference is for a house with a hall running from front entrance to rear entrance then do not select a plan in which one must pass through living room or dining room to reach the front door or stairs. If you prefer a house with living room across the entire front do not be content with a plan that suits you in other particulars but has the living room on one side. If you prefer to welcome visitors in a reception hall do not be content with a plan in which the entrance from the street is directly into the living room.

Remember there are six hundred and four different home designs in this volume, and among these you are sure to find at least one that suits you in every particular. Look for it till you find it! The sum of money you spend for your home will probably be the largest single investment you will ever make. Safeguard the home investment by being ab-

solutely sure you have the right plan before you go ahead.

Many a home-builder has found that "extras" added ten to twenty-five percent to the cost of his home—and at that the contractor made less profit than if the original plan had been adhered to. Afterthoughts are expensive when construction has begun—the time to think is *before you begin to build*.

A careful study of HOME BUILDERS CATALOG—Manufacturers' Section as well as Plan Section—will remind you of everything you should consider in connection with your home. It is a complete encyclopedia of building plans, building materials and home equipment. Every page suggests ideas that will aid you in making your home more attractive, more comfortable, more convenient. With the information contained in this volume you can plan wisely and build well a house that will be forever more "a home of no regrets."



A WELL LIGHTED LIVING ROOM



## Why Building Costs Increase from Generation to Generation

One often hears it said that houses cost more to build now than they used to, and this is quite true; but if one postpones building a home of his own until houses become cheaper he will probably continue to pay rent for the rest of his life. If landlords can build homes and make a profit on them so can you.

It is a mistake to refer all increases in building costs to the effects of war. During the 18 years between the Spanish War (1898) and the entrance of the United States into the World War (1917) this country was at peace, yet the cost of homes steadily increased. During the 32 years of peace between the end of the Civil War (1865) and the Spanish War the cost of homes increased.

Each generation the population of the United States increases:

31,000,000 in 1860  
62,000,000 in 1890  
105,000,000 in 1920

creating a greater demand for homes.

Each generation the per capita wealth of the United States increases:

\$514 in 1860  
\$1,036 in 1890  
\$2,918 in 1922

creating a greater number of families that can afford to own better homes.

Each generation the cost of labor increases and the length of the working day is shortened. Less than 50 years ago common laborers received only a dollar a day for 10 hours' work. The highest paid artisans employed on building construction—masons, carpenters and plasterers—received \$2.50 for ten hours. Today men work 8 hours instead of 10 and receive three or four times as much for a day's work. But improved methods of building construction, mechanical aids which increase the amount of work a man can do in a day, and factory production of many things that enter into the construction of homes, things that were formerly made by hand on the job, compensate in some measure for shorter hours and higher wages.

### Why Homes Cost More Today

The principal reason why homes cost more today than formerly is because *each generation demands more home comforts and conveniences*. If you are content to live in the kind of house that was considered satisfactory 50 years ago you can still build one for very much less money than a modern home will cost.

The average American home 50 years ago had no bathroom nor indoor toilet. A washtub in the kitchen, filled with water heated on the range, furnished bathing facilities for the Saturday night bath and toilet facilities were provided by a privy (or earth closet) in the back yard. Every bedroom had its wooden washstand with water pitcher to be filled daily and slop-jar to be emptied. Rooms were heated with stoves which, like the kitchen range, were wood or coal burners, and there was a wood-shed in the back yard, from which one carried wood and coal in of nights, and an ash-bin to which ashes were carried in the morning. In cities, where there were water mains, there was running water (usually cold water only) in the kitchen, but seldom in any other part of



AN INEXPENSIVE HOME

the house. There was no electricity in the home, either for illumination or for the many uses that now lighten the housewife's labor. There was no garage, for there were no automobiles; and few stables, for not many city dwellers could afford the expense of a horse and carriage.

### Dad's Boyhood Home

There were fewer partitions in the moderately priced house of 50 years ago, because hallways were considered a needless expense. The front door opened into the living room (or parlor as it was then called) and to reach the kitchen you passed through living room and dining room. The bedroom floor was similarly arranged—you passed through one bedroom to reach another. Floors were of wide pine boards completely covered with carpets that had to be taken up, beaten and tacked down again once a year. Window sash were not counter-weighted and had to be held up with catches when opened. Screens were made of mosquito netting tacked to wooden frames. Storm sash was not used. Houses were not insulated to prevent heat losses, nor provided with weather-stripping. Basements were the exception, not the rule. In short, the childhood home of the middle class, middle aged man and woman of today is not at all the kind of home their children would care to live in—nor the old folks, either, now that they are accustomed to better things. Comforts and conveniences that formerly did not exist, or were looked upon as luxuries, are now considered necessities.

What your home costs today depends very largely on what you are willing to do without. Where the utmost economy must be exercised it is possible to reduce the cost of any home considerably by omitting some of the things you would like to have. But there is danger in carrying this too far. Better homes are being built each year and unless the house you build is a fairly good house today it will be an exceedingly undesirable house ten years hence, and you may have difficulty in disposing of it at any price when you wish to sell and build a larger and better home for yourself.

The possibility that you may one day wish to sell should always be borne in mind. This will lead you to select a design that is always popular, to build of good materials so that your house will still be in excellent condition ten or twenty years hence, and to equip your home with such conveniences as the average American family considers necessities.



# Suggestions for the Home Builder Who Must Economize

In order to determine what features a home *must* have and what can be omitted (or may be added later) it is wise to pass in review all of the things you should have, or would like to have, and, having first determined these, to eliminate one by one those that you consider least necessary to your comfort and convenience. This is not an easy task, but when the home-building fund is limited we must give up (for the time being, at least) many things that might be retained if we could afford to spend more.

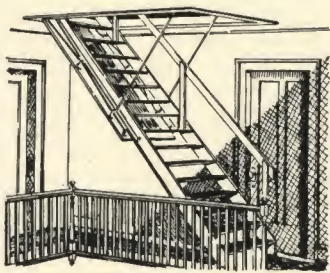
The mistake most often made by those building their first home is to try to save on the cost of necessary materials and home equipment instead of building a smaller house or omitting altogether some of the things that, at a pinch, one can do without. It is of the first importance that your home be well constructed and that all materials and equipment entering into it be such as will last for years without more than ordinary wear and tear. The use of poor materials never results in a saving—except for the moment—for before long you will have to add to the original cost the cost of repairs and eventual replacement, and in the end the sum you save by using poor materials will be spent over and over again to keep your house in repair.

But it is possible to economize without resorting to poor materials. To do so you may have to modify your ideas regarding the size of your house and the features you wish incorporated in it, but it is better to build a smaller house well than a bigger house badly. So, first of all, determine—

## How Large Must the House Be?

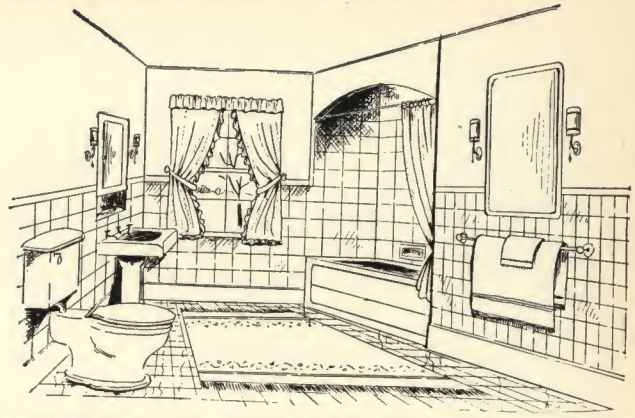
How many rooms do you require to meet the needs of your family? How large must each room be? What ceiling height do you consider necessary? Remember that a house has three dimensions—length, depth and height—and that a room 10x10 feet that adds only 100 square feet of floor space adds also 100 square feet of ceiling, 320 square feet, or more, of wall (depending on the ceiling height) and calls for additional doors and windows, and additional labor by masons, carpenters and plasterers.

Few home builders realize how large a saving can be made in building costs by reducing dimensions of floor plans and ceiling heights. The blue-print floor plans of a two-story house 30x40 feet, with 9½ foot ceilings on first floor and 9 foot ceilings on second floor, do not appear to be *much* larger than those of a 20x30 foot house with 8½ and 8 foot ceilings,



By installing a disappearing stairway access to the attic is made easy. When not in use the stairway folds away into the ceiling and is unobtrusive.

Many people are using disappearing stairways to convert the attic space into children's play rooms, libraries, extra chambers, workshops, and what not. It enables you to utilize space which has hitherto been inaccessible and practically useless.



A BATH ROOM THAT COULD BE GREATLY REDUCED IN SIZE WITHOUT OMITTING ANY ESSENTIAL CONVENIENCE

but the cost of the 30x40 foot house will be two to three times that of the 20x30 foot house, assuming both to be built of the same materials.

Blue-print plans are usually drawn to a scale of ¼ inch to the foot and are apt to mislead people who are not familiar with them. It is so easy to add a square inch to the plans without realizing that this adds 16 square feet to the floor space on each floor and several hundred cubic feet to the space enclosed within the four walls of the house.

An extra closet that certainly would be very convenient but which is not absolutely necessary may add fifty dollars or more to the cost of your home—an additional room \$500 to \$1000. So determine first of all (if economy is necessary) how small a house will satisfy the needs of your family.

And now let us go over the plans, room by room, and see what we must have and what can be omitted, beginning with—

## The Basement

Excavating for foundations and basement is expensive. You cannot save on foundations without endangering the stability of your house, but it is often possible to make a considerable saving by reducing the basement space. How much space do you actually require for heating plant and fuel bins, for storage space, for laundry?

Is it necessary that the laundry should be in the basement? Construction above ground costs less than construction under ground, and space for a small laundry (6x10 feet is ample) can sometimes be found (or provided) adjacent to the kitchen, which is a more convenient and cleaner location with better light and ventilation.

If your heating plant uses coal for fuel, space must be provided for coal bins, but if you use oil or gas for heating less basement space is needed.

It costs more to provide storage space in the basement than in the attic. Why increase the size and cost of the basement when you may have ample room in the attic for storage purposes?

Do not economize by making a shallow excavation for the basement. Have sufficient head-room so that one can stand upright without bringing his head in contact with the floor joists of the floor above.

If the basement floor is of concrete lay a good, thick floor (4 inches at least), otherwise cracks are likely to develop.

If the soil in which your basement is constructed



is damp, waterproof floor and walls and lay drainage tile under the basement to conduct moisture away from the foundations.

Save on the cost of the basement by reducing its dimensions as much as possible and omitting (for the time being at least) plastered walls and ceiling, and partitions. These can always be added later. But do not sacrifice sound construction for the sake of additional space that you may never need.

### Why the Square House Costs Less

Leaving the basement, let us consider some of the ways in which building costs may be reduced above ground. There is an old saying that "the square house is cheaper to build," and this is generally true. You will understand the reason for this if you take 16 pieces of paper, or cardboard, each measuring one square inch and arrange them in different ways, as shown on this page.

Now estimate the length of the outside boundary of each figure and you will find that Figure 1 (the square) has the least boundary of any, though all contain the same number of square inches—16.

#### LENGTH OF BOUNDARY LINE

Figure 1—16 inches

Figure 2—18 inches

Figure 3—20 inches

Figure 4—20 inches

This demonstrates that when you build a square house you enclose the maximum of space with the minimum of wall. Any departure from the square ground plan means more expense for foundation and walls. This additional expense may be justified by compensating advantages, such, for instance as better



A DUTCH COLONIAL HOME

proportioned rooms, more convenient room arrangement, or more attractive exterior, but it is well to bear in mind that houses of irregular outline cost more to build than square houses of equal floor space and to consider carefully whether the additional expense is justified.

A further saving in the cost of wall construction can be made by carrying the sidewalls up to the level of the second story floor only. A typical example of this type of construction is the Dutch Colonial house, in which the bedroom floor is enclosed by the roof. One must be content with fewer rooms, or smaller rooms, on the second floor if this form of construction is used instead of carrying the walls up to the level of the second story ceiling, but the popularity of the 6-room Dutch Colonial type of house proves that it has a strong appeal for the home-builder of limited means.



SCALE

1 SQUARE = 1 SQUARE INCH.

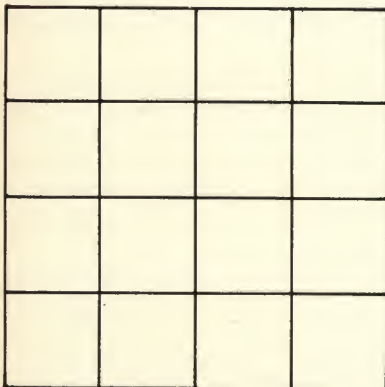


FIGURE 1.

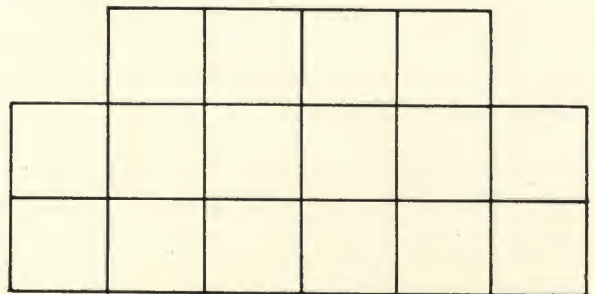


FIGURE 2.

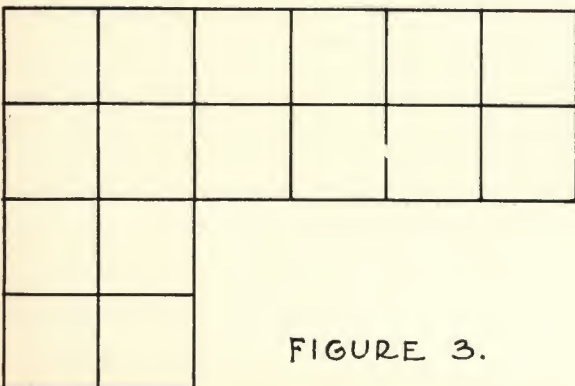


FIGURE 3.

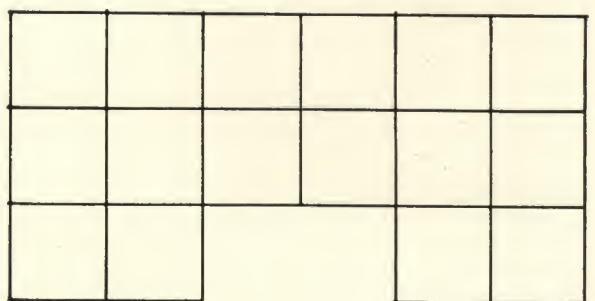


FIGURE 4.



## Eliminating the Dining Room

The dining room is used only for a few hours each day, yet it often occupies nearly as much space as the living room and is given a more favorable location than the kitchen, in which (in the servantless home) the housewife spends the greater part of her time.

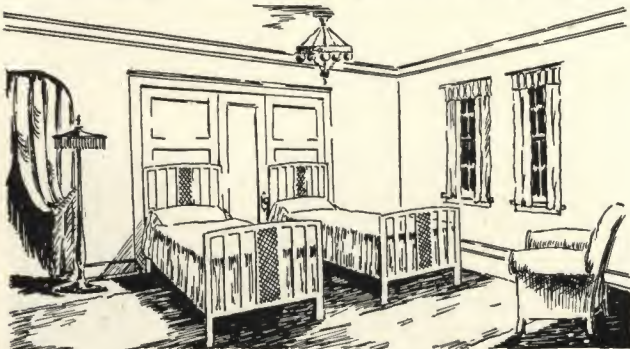
In early American homes kitchen and dining room were often combined, for convenience as well as economy, and in modern, moderately priced homes we occasionally find a similar arrangement, the dining room being much reduced in size, sometimes being merely a nook just large enough for a table and seats for four or five people.

By eliminating the so-called butler's pantry (which, however necessary it may be in homes where there is a butler, is certainly out of place in homes where there is not even a maid) space can often be secured for a cosy, little dining room adjacent to both kitchen and living room. When company is being entertained the table may be set in one end of the living room, but when the family dines alone the little room, or nook, adjacent to the kitchen is used.

This is not a plea in favor of abolishing the dining room from all houses. We are merely considering methods by which the cost of the home can be reduced if strict economy is necessary. The living room and kitchen are the most used rooms on the first floor of the home. The dining room is used least. Therefore, if space-saving is imperative reduce the size of the dining room, or omit it altogether.

## Disappearing Beds

Disappearing Beds are to-day very attractive sleeping units in design and finishes. They have been placed in the fine furniture class due to their wonderful improvements. In fact they are made in many types, portable, fixed or pivoted; also in real wood ends, as well as, steel and even equipped with box springs. The modern pivot bed of to-day also conceals the closet in which it is stored by closing the opening back of the bed. Stock doors are used in all instances.

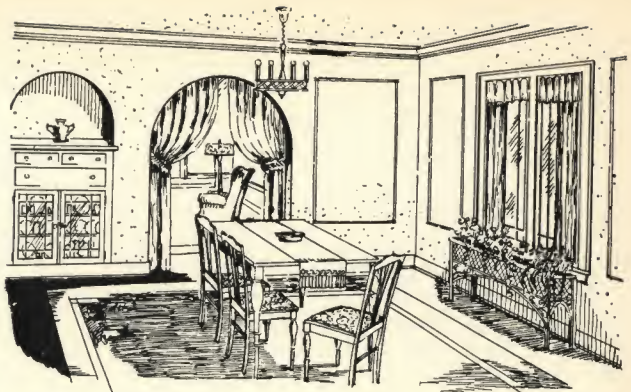


Progressive builders and home owners use them, thereby reducing building cost considerably and making rooms used but a few hours each day previously now really a paying investment.

There are twelve types of concealed beds making it possible to install a disappearing bed under every condition and do so at real advantage to the home owner. For instance the small bed room by using a concealed bed is converted into a Den or Sewing Room. The children have a play room of their own as well as their bed room.

## Vestibule and Hall

A hallway 4 feet wide by 20 feet long requires the same amount of flooring, wall and ceiling as an 8x10



foot room. It is unquestionably very convenient to be able to go from the kitchen to the front door without passing through either the living room or dining room, but when one is figuring on ways to reduce the cost of the home it is well to balance this convenience against the saving that will result from eliminating vestibule and hall and having the front door open directly into the living room.

## The Kitchen

Domestic Science experts favor the small kitchen well provided with built-in conveniences. In such a kitchen the housewife does not weary herself by unnecessary steps, for everything she needs is close at hand. If plenty of closet space is provided in the kitchen itself the pantry that was formerly considered a necessary adjunct to the kitchen may be dispensed with.

## Porches and Sun-parlor

If a house plan is selected that includes a sun-parlor, a porch at front, rear or side, and possibly a sleeping porch as well, it should be remembered that these, however, desirable they may be, can be omitted if their cost unduly taxes the resources of the home builder.

In many cases porches and sun-parlor are not part of the main building plan but are additions to it and can be added at any time. The wise thing to do, therefore, when one has a limited building budget is to contract for the essential part of the home and add porches, sun-parlor and other desirable additions after the mortgage is paid off.

## The Bedroom Floor

If the space-saving suggestions for the first floor, given above, are followed this will result in corresponding reductions in dimensions of the second floor and the result will be a smaller house than one originally intended to build, but one that can be constructed of thoroughly good materials without endangering the home investment by obliging the home builder to borrow more money than he can conveniently repay.

When the attic is used only for storage purposes one dislikes to give up the space a stairway requires on the second floor—space which could be used to increase the size of a bedroom or bathroom, or to provide an additional closet.

The problem of the attic stairway has been cleverly solved by the invention of the Disappearing Stair. This is an entirely practical stairway that disappears into the attic when not in use. The only part of the Disappearing Stair then visible is a panel in the ceiling of one of the second floor rooms, or hallway.



# Make a Check List

## Make Your Own Check List

In the preceding chapter ways to reduce the cost of the home were suggested. After this is done you should make sure that your home will be complete in every detail because forgotten items will mean added cost as well as annoyance.

The quickest and surest way of making a thorough check is to go through the manufacturers' section of the HOME BUILDERS CATALOG and make a list of each item that you forgot to include. After this Check List is made you can eliminate the unnecessary items. If you do this we will feel sure that you will be benefited and you can feel sure your home will be complete.

## Landscaping Home Grounds

This should be planned before building of house is begun so that earth excavated for foundations and basement may be used to level depressions in the lot or to build terraces.

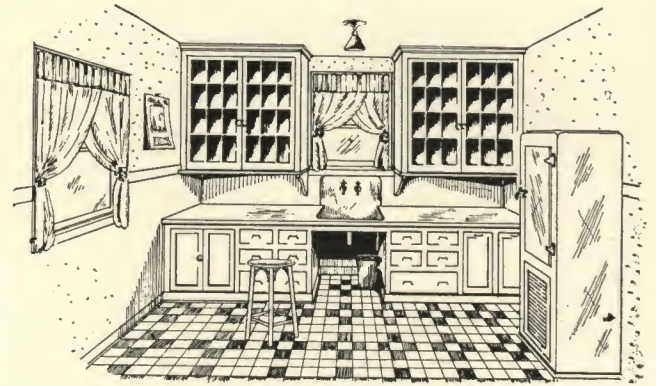
The top soil should be piled in one spot to be used later for enriching the garden. This is the time to consider location of garage and driveway—hot house, rockery and garden pool—pergolas and garden furniture. Also fencing.

It is not necessary to contract for any of these things at this time but if you contemplate having some of them, or all of them, later on, plan in advance.

## Garage

Consider whether the garage should be attached to the house, be located near the house but not attached, or be placed at some distance from the house. Consider the relative advantages of the one-car and two-car garage—the latter does not cost much more than the former. Settle the question of garage door hardware and whether doors shall open in or out. Provide for water pipe in garage, and gasoline tank. If garage is to be heated and is located far from the house, a separate heater will be needed. If attached to the house, or near by, it can be heated by the house

heating plant. In either case it should be insulated to prevent excessive heat losses.



## The Kitchen

Every woman will delight in planning the arrangement of the kitchen. Draw a rough plan of the kitchen on a scale of one inch to the foot—that is to say, if kitchen is to be 9x11 feet, make plan 9x11 inches. Now cut out pieces of paper (using same scale, one inch to the foot) to represent sink, range, tables, chairs, kitchen cabinet, refrigerator, etc., and place these on plan of kitchen, moving them about until you determine best possible arrangement. See that each piece of kitchen furniture is conveniently placed with respect to the others. Note carefully locations of doors and windows and be careful not to place anything so that it interferes with the opening of a door, or makes it difficult to reach a window.

This is the time to consider the question of electric refrigeration and whether mechanical equipment shall be installed in base of refrigerator or in basement. Consider also ventilating fan to be installed in kitchen wall near range. This will remove all odors of cooking from kitchen and will keep kitchen cool in summer.



TWO VIEWS OF THE SAME HOUSE SHOWING IMPROVED APPEARANCE RESULTING FROM PLANTING A FEW SHRUBS AND TREES



Determine at this time also whether hot water heater is to be installed in kitchen or in basement and whether the instantaneous type or storage type is to be used. Consider likewise the question of built-in kitchen cabinets, broom closet and ironing board. Also breakfast nook.

Descriptions of all of the items mentioned will be found in Manufacturers' Section of this book and if dimensions are not given, manufacturers will gladly furnish you with this information on request.

### Plan Each Room Separately

Now draw a separate plan of dining room, living room, bathroom and each of the bedrooms on same scale as the kitchen and cut out pieces of paper to represent the articles of furniture and built-in conveniences that will be used in these rooms. Experiment with different arrangements until you find the best. This will become a fascinating game in which every member of the family can take part.

Study carefully every page in the Manufacturers' Section of this book—you will find in them hundreds of suggestions for making your home more attractive, more comfortable, more convenient. Nearly every manufacturer has one or more booklets fully illustrating and describing his product. Write for these—they are free—and contain a wealth of helpful information.

By spending a dollar or two for postage on the letters you write to manufacturers you can secure a home builders library that is more authoritative and up-to-date than many of the text-books published

for home builders—books that would cost you from \$2.50 to \$5.00 each. These books are in many cases compiled from the same manufacturers' catalogs that you can secure without cost merely by writing for them.

With the aid of these manufacturers' catalogs you can get complete information on such important subjects as heating systems—warm air, hot water, steam and vapor—and such related subjects as insulating materials for the furnace or boiler and for the house itself, which prevent heat losses and greatly reduce the fuel bill. Get, also, while on this subject, information on weatherstripping and storm sash and also on automatic heat regulators which keep the rooms of your home at an even temperature day and night.

Get information on interior and exterior wall finishes, the use of tile in the bathrooms and elsewhere throughout the house; how to wire your home so as to utilize the electric servant to the best advantage; lighting equipment, etc.

Collect data on roofing materials, plumbing equipment, hardwood floors, metal lath, wallboard and the many other subjects on which prospective home builders should be well informed.

Rightly used, the information given in this book, plus the information you can secure by writing to the manufacturers whose products are described in it, will aid you in avoiding the mistakes commonly made by those building a home for the first time and will result in the house you build being what you wish it to be—"a home of no regrets."

## No Matter How Limited Your Income We Can Furnish Plans for Your Home!

### Our Special Plan Service

In the event that you cannot find in this book a home suitable to your requirements or income, do not overlook the fact that we maintain an Architectural Department especially equipped and devoted exclusively to designing special plans to order.

Also there are often certain conditions and requirements that demand changes in the plans which otherwise would be satisfactory. Therefore, we gladly offer our assistance in any manner that will aid you in securing the exact home desired no matter how small the home or how small the budget.

We work out your own ideas in a practical manner to insure proper and safe construction.

Our special service enables one to secure special architectural services at such a low cost that it is within the reach of all.

### How to Proceed

It is absolutely necessary that you submit to us a rough pencil drawing. (A one-line drawing will be sufficient.) Have it show the actual outside dimensions of the building, approximate location of the doors, windows, closets, porches, stairways and all rooms.

If special size rooms are required mark actual dimensions plainly on sketch.

If you have photographs of any house designs or of interiors, or of any special features you wish incorporated in your home, send them to use with your other information.

Upon receipt of sketch and information we immediately make up preliminary pencil plans, accurately drawn to a scale. These are submitted to you for approval and O. K.

Upon the return to us of these preliminary plans with your O. K., we then complete the drawings and make blue print working plans for you.

Address all communications for special service to

Architectural Dept.,

HOME BUILDERS CATALOG CO., 1315-21 W. Congress St., Chicago, Illinois



# Making Your Home Worth More to Own

The value of a house is measured today primarily in terms of livability. Location, architectural design and beauty of finish are important, but the living-equipment of the house has become a big item in its desirability and hence in its selling price.

Striking proof of this change in the viewpoint toward the home is had from considering the old colonial mansions of the past century in comparison with what is regarded as necessary for a home to be called modern today. Few, if any, more beautiful plans can be found than those afforded by these old mansions with their spacious halls, beautiful staircases, restful living rooms and other unquestionable architectural features. But no one familiar with present day building practice could rightly call any of these homes modern.

Their heating arrangements, though beautiful to the eye, were unable to furnish sufficient, much less uniform, heat for the occupants. The kitchen equipment, though picturesque, was slow and did not offer the degree of control necessary for today's work. Laundering, if done in the home at all, was performed under the most unfavorable conditions. With the additional outside ice-house, real domestic refrigeration was an unknown luxury.

Without appreciating any less the architectural features, the desire of today's home purchaser for a particular house is governed more than ever by its facilities and equipment installed to give comfort, convenience, cleanliness and sanitation. This means that the extent that a house is modern today can be judged largely by the degree to which it is equipped to meet the fundamental needs of the home. Speaking generally these needs are arrangements for cooking and refrigerating food, disposing of household rubbish and garbage, providing instant hot water for household purposes, insuring a uniform house temperature at all times during the heating season, and facilitating the washing, drying and ironing of clothes under home conditions. Some of these household units are primarily labor saving devices and others rank also as comfort giving equipment. Like the modern plumbing and lighting systems most of these units also contribute in a substantial way to the health of the family.

Everyone knows that gas has been a faithful servant in the home for many years but few people realize that gas is one of the cleanest and most reliable agents for performing the several fundamental services that have just been mentioned.

Recent inventions and scientific developments in the manufacture of domestic gas appliances now make gas just as up-to-date as radio in the many new services it performs in the household.

Let us start first with the kitchen range. It is available in a color to match the kitchen scheme or in all white enamel, if that is preferred. It is equipped with an automatic lighter so that the range is always ready for use without fuss, dirt or trouble for the housewife. Just above the burners is found the oven heat regulator which has raised the standards of home cooking and baking to the level of an exact science. With the assistance of the heat regulator and time and temperature charts, recipes can be followed by the housewife just as exactly as the druggist follows a prescription.

In the modern home you will note that the faucets in the bath and kitchen always give a plentiful and immediate supply of hot water from an automatic gas water heater. At the turn of the faucet you have plenty of hot water—always at the temperature desired and ready when you want it. An ample supply of hot water lightens the task of washing the dishes and cleaning the home, in addition to proving a real comfort for the tub or shower and for shaving. This system of water heating provides an ever ready supply of water at all seasons of the year without attention.

In the modern kitchen you will search in vain to find a garbage can. This old method of eliminating refuse has been discarded in favor of the gas-fired incinerator which burns up all forms of rubbish and household waste. This immediately stops the garbage nuisance, keeps the kitchen spotlessly free of waste, and materially reduces the fire hazard from rubbish.

In one corner of the kitchen stands a white enamel gas refrigerator. This is the latest service performed by gas—giving cheap, reliable and uniform refrigeration. Paradoxical as it seems, the small gas flame is used to produce the chill in the refrigerator. Gas-fired refrigerators work on the absorption principle entirely different from the commonly known compression types. There are no moving parts to get out of order and be subject to wear and tear. Their operation is continuous, insuring absolute reliability and no noise.

Fire-place heaters in the various rooms can be used in the late Autumn or early Spring when the weather is chilly, to give warmth for a few hours without the furnace. Today's modern home has no such thing as the old time cellar. That space is now utilized as a playroom for the children or perhaps as the billiard room for the home owner. In another part of the basement is the laundry.

Blue Monday has no terrors for those who have an adequately equipped home laundry. The gas heated washer and ironer simplify these tasks immensely.

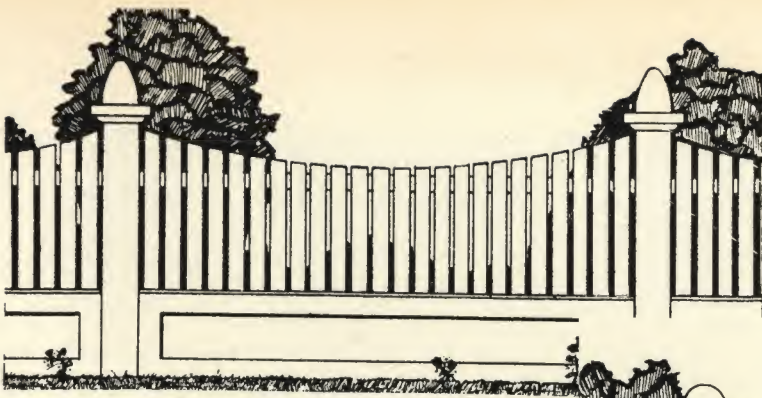
Years have not changed the pride good housekeepers feel in the snowy whiteness of their linens. Nothing distresses a woman so much as when the wind sends sooty clouds of smoke across the yard where the clothes are drying. The gas heated clothes dryer eliminates this and dries clothes as fast as they can be washed. Wind, rain, slush and snow are no longer wash day terrors. There are no heavy baskets to be tugged up and down flights of stairs.

These new services rendered by gas make it more necessary than ever for the home builder to provide for them at the low cost by installing the proper piping and flues at the time the house is erected. The cost of piping, if put in at the time of erection is relatively small compared to the total cost of the building, from 0.10 to 1.0%.

When one realizes that foresight in laying out a little extra money on labor saving and comfort giving equipment not only increases the daily pleasure in living but also adds more to the value of the investment than it cost, then there is a double reason to be proud of the home and to get greater happiness from owning it. The home owner may not expect or wish to sell his house when he builds it, but the mere fact that it has this higher selling value gives him greater satisfaction in owning it.

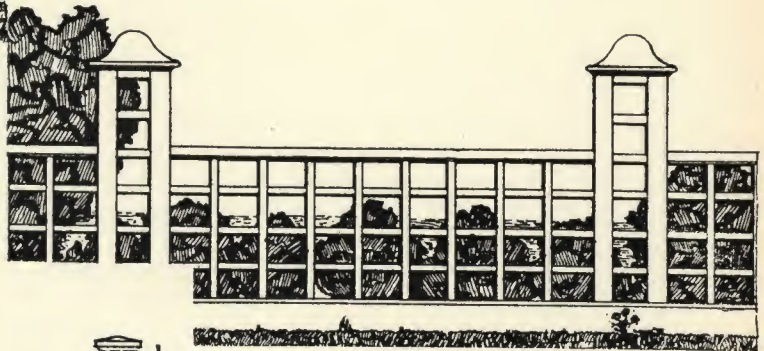


# Improvements for the Lawn and Garden



Style No. 119  
Slab Picket Wood Fence

WE HERE illustrate a few ornamental wood fences as suggestions to those who would beautify their lawns and gardens.



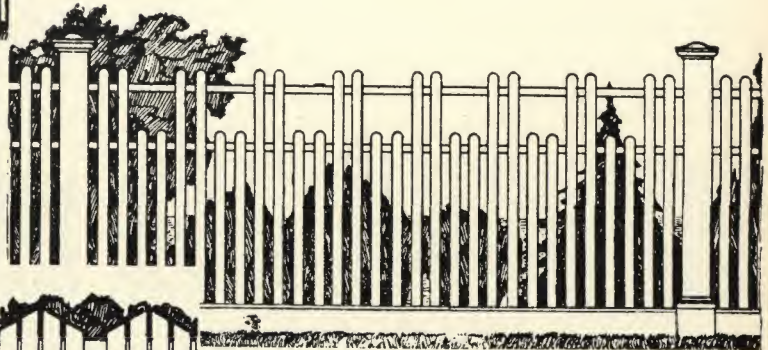
Style No. 109  
Ornamental Wood Fence

WITHOUT a garden or lawn round it the home is never quite complete and without attractive enclosures the garden is never quite complete.



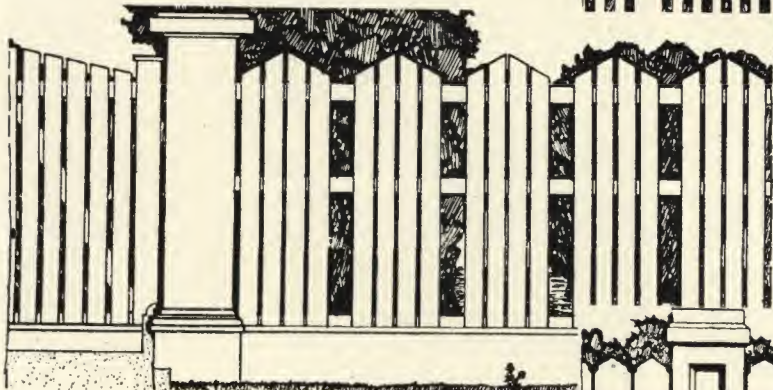
Style No. 101  
Wood Picket Fence

A GOOD idea is to separate the flower garden from the vegetable garden with a lattice fence over which vines can grow.



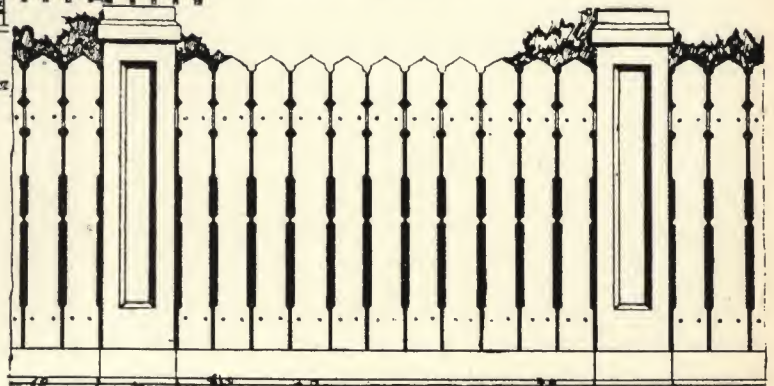
Style No. 111  
Wood Picket Fence

SHOWING the home at its best is accomplished only by careful preparation of the lawn and garden with appropriate fences and enclosures.



Style No. 114  
Slab Picket Wood Fence

IF YOU have special ideas of your own which you want worked out, our Architectural Department stands ready to aid you.



Style No. 127 Ornamental Slab Wood Fence



# Woven Wood Fencing



Woven Wood Fencing

One thing that should never be overlooked by the man who is building a home is the type of fencing he plans to use, for this has a great deal to do with the success of the whole undertaking.

Too many people get the house itself fixed up before they give any thought to the appearance of the grounds, and this is especially true with regard to fences. This short description of a very attractive type of fencing which has recently been brought to this country, may help therefore to give the home builder some practical ideas on the subject.

It is called woven wood fencing because the straight, live, saplings of which it is made are very carefully matched and woven together into sections which are joined together to form a veritable wall of great beauty and distinction. Nothing like this fencing has ever been seen in this country, although in France and to some extent in other European countries it is a familiar sight, enclosing some famous old estate or sheltering the garden of a *maisonette* from public view.

There are two types of woven wood fencing which recommend themselves to the attention of the American home owner. One is entirely hand-made, with the saplings

bound so closely together that outsiders cannot see through. This type, which comes in sections five feet wide, is especially suitable where absolute privacy is desired. The other is made by machinery and comes in rolls, the saplings being spaced about  $\frac{3}{4}$



As a background for planting, and to give seclusion

Illustrations Courtesy of Robert C. Reeves Co.



inches apart. Though not insuring absolute privacy, this latter serves many of the same purposes as the solid fencing. Both types have great strength and durability, and require no paint or maintenance expense.

In spite of the growing use of these fences in America, they are still produced in France. They are not made in this country due to the cost of labor and the fact that chestnut has been very scarce here since the blight several years ago. In France, on the other hand, labor is cheap and chestnut abundant. Thus, despite being imported, the cost of woven wood fencing is surprisingly moderate.

For many years the French used heavy galvanized wire to bind the saplings to the horizontal braces that hold them in sections. But the saplings were so durable that they outwore even the best galvanized wire, and today they are held together with American Cooperweld wire which is shipped to France and is absolutely rust proof.

The uses of woven wood fencing are varied and many. Originally, it was erected along the boundaries of large estates for the main purpose of preventing trespass, but soon it was discovered how practical and decorative a screen it made for other parts of the landscape. Today, its use has spread to the suburban home where it serves a multitude of purposes—to conceal a laundry yard, for instance, or a service entrance—to form a natural background for flowers and shrubs—to keep a neighbor's garage and driveway out of sight—to make a play stockade for children—to do a hundred odd jobs that no other fencing is capable of doing in quite the same effective, artistic way.

In its harmonious relation to the various types of architecture shown in this catalogue, woven wood fencing is remarkable. It goes with either Colonial, Modern English, French, or Western Bungalow—frame, stucco, or brick—blending as readily with its surroundings as do fine old shade trees, for like them it is an entirely natural product.

The erection of woven wood fencing does not present any difficulties. No skilled labor is required. Depending on the type, it is unrolled and stretched against posts placed about 8 feet apart, or the sections are nailed against a



Cleft Chestnut Fence

framework of posts joined by 2' x 4' stringers. It comes in several heights, the most popular being the 3' 10", the 4' 11", and the 6' 6" height. Quaint gates to match can also be obtained. These are made either curved or straight across the top, and add much to the charm and attractiveness of this interesting fencing.

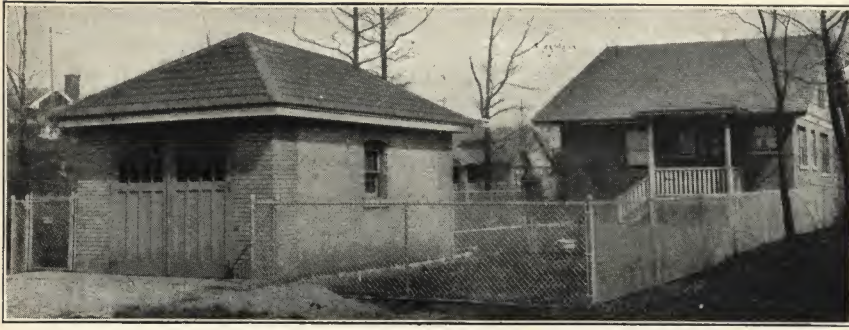


Cleft Chestnut Fence is effective decoration

Illustrations Courtesy of Robert O. Reeves Co.



# WIRE FENCING



Wire fencing is economical both to buy and maintain. It looks well with any type of home as is evidenced by these pictures.

Perhaps you and your neighbors will want to join together and put a fence along the front of your houses. The cost is small and the satisfaction will be great.



This appealing back yard would be lost if it were not fenced in. There is a distinct pleasure in being able to see just what does belong to you.

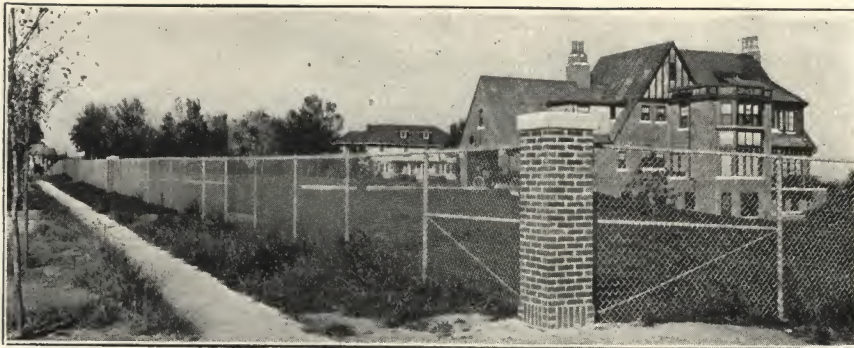
To protect your garden from trespassers, neighbors' dogs and chickens, etc., a fence is essential. Furthermore it is quite an artistic addition.



*Illustrations Courtesy of Page Fence Ass'n.*



# WIRE FENCING



A fence not only has decorative value, but insures privacy as well. In order to have well kept lawns, fencing is really a necessity.

The picture at right shows fencing across front of lawn. It gives the home a dignified isolation and provides a proper background for shrubbery, trees, etc.



By fencing in your backyard you can provide a safe place for the children to play. They can be allowed to roam at will and your worries as to their whereabouts will be completely dispersed.

If you have a lawn on a corner, a fence is necessary to keep it secure. The temptation to take the shortest distance between two points is irresistible to some people.



*Illustrations Courtesy of Page Fence Ass'n.*



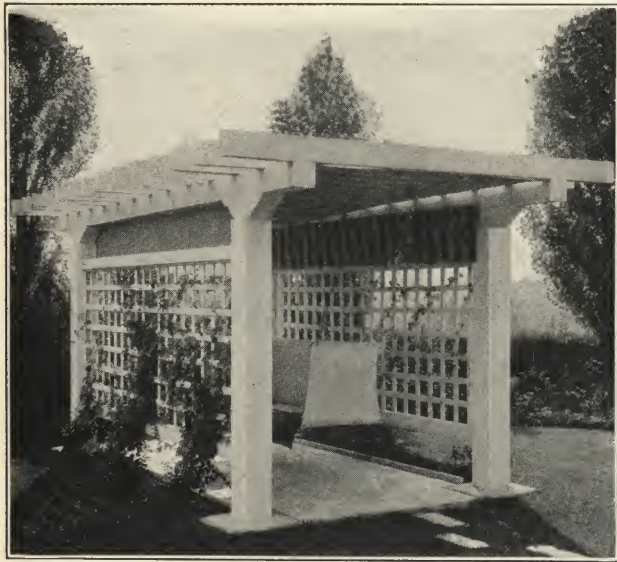
# Suggestions for the Home and Garden



Arbor—Design No. 298



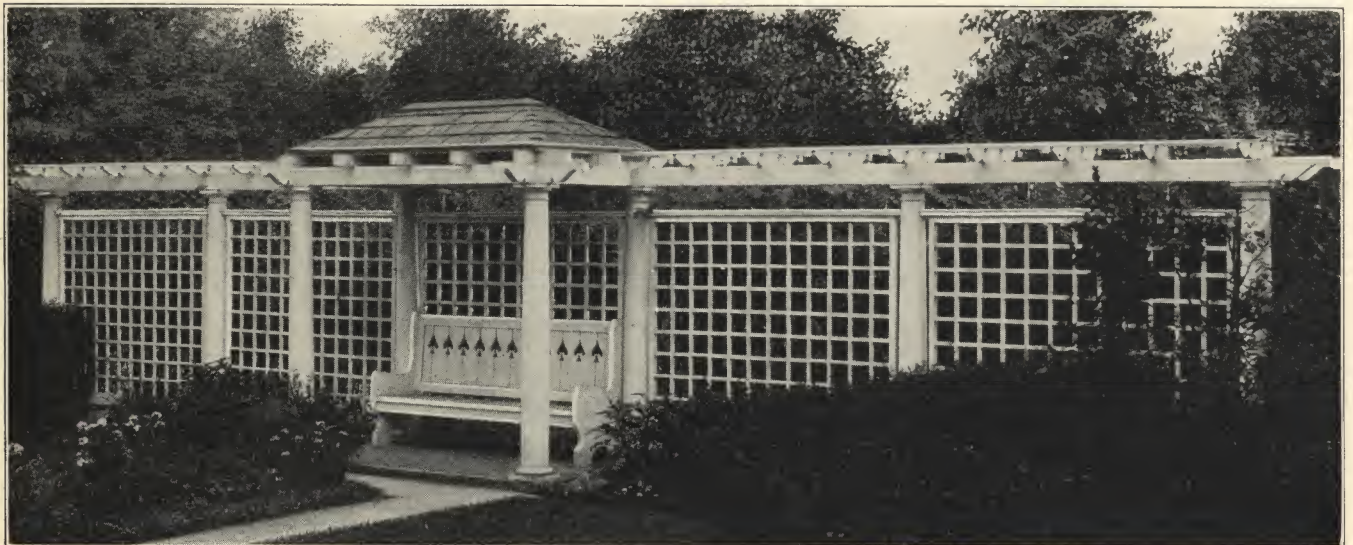
Pergola—Design No. 411



Pergola and Arbor—Design No. 189



Lattice Gate and Fence—Design No. 422



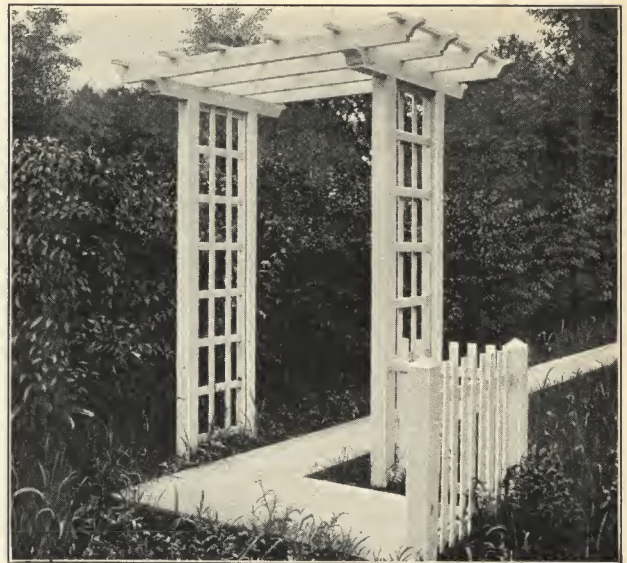
Combination Pergola, Fence and Lawn Settee With Roof



# Beautifying the Lawn and Garden



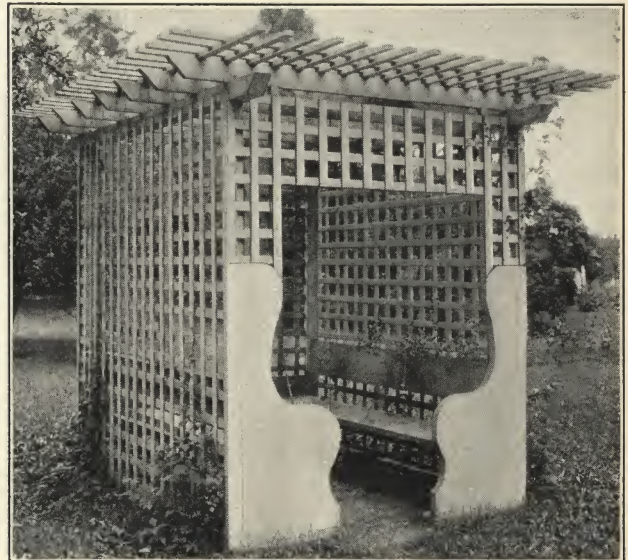
Arbor—Design No. 174



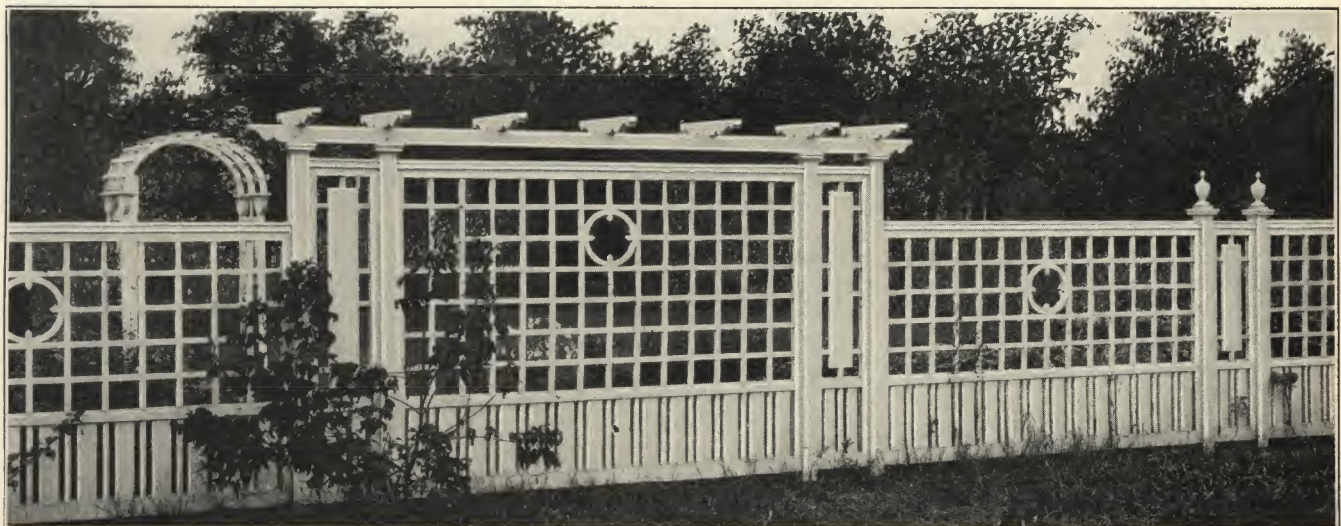
Pergola—Design No. 462



Arbor—Design No. 311



Arbor With Settee—Design No. 193



Attractive Combination Fence and Pergola



# Front Entrances and Exterior Doors

**T**HE entrance design is the index to the architecture of the home itself and a selection of the design should be carefully considered.



Front Entrance—Style 409



Front Entrance—Style 622



Front Entrance—Style 223



Front Entrance—Style 221

**C**ORDIALITY, pride and dignity are the impressions an attractive front entrance creates upon all callers and friends.

**O**UR Architectural Department is prepared to assist you with full information and complete detailed drawings for any style of entrance.



Front Entrance—Style 511



Front Entrance—Style 307

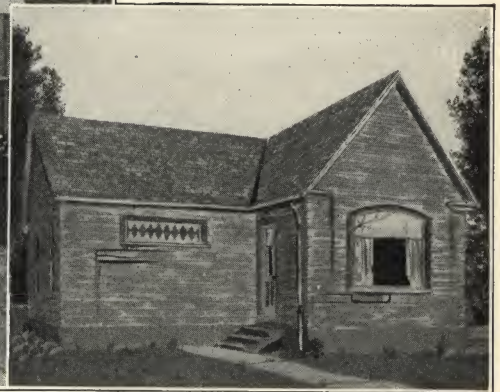


# REMODELLING MAKES THE OLD HOUSE ATTRACTIVE



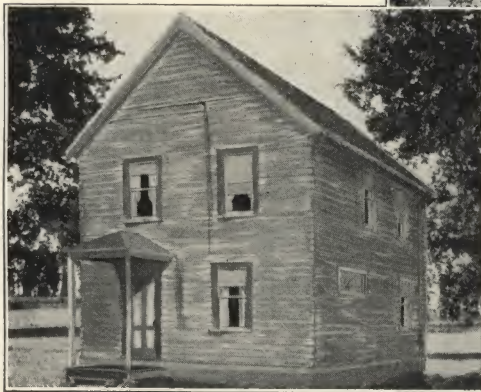
AFTER REMODELLING

IN selecting a style of architecture to which the old house is to be remodelled, it is necessary to first determine at least expense the style having similar lines to the old house.

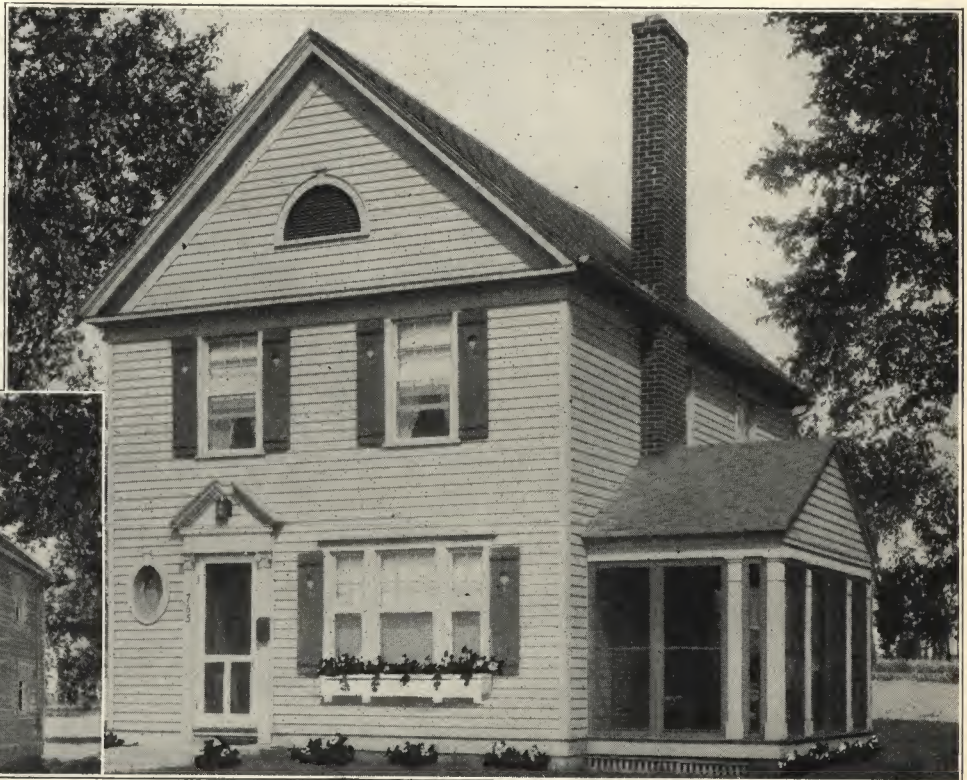


THE OLD HOUSE

EVERY alteration is an individual problem and depends not only on the home to be remodelled but on local conditions as well. Our Architectural Department is particularly equipped to handle remodelling problems. We will gladly aid you.



THE OLD HOUSE



AFTER REMODELLING

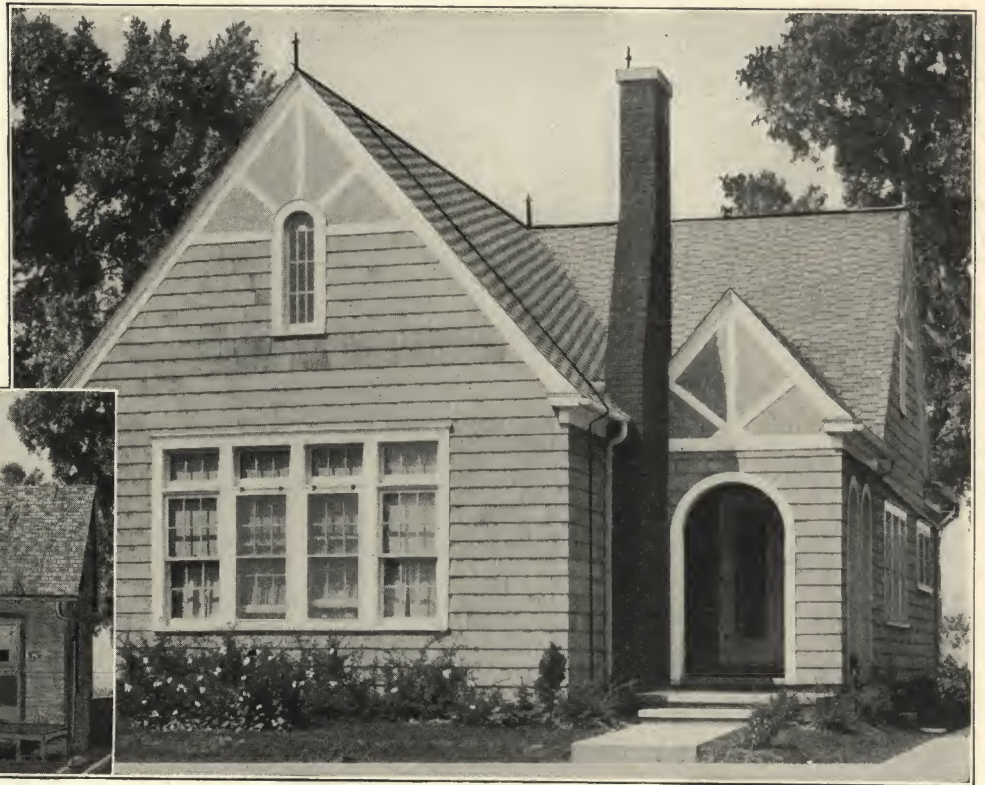


# Make Your Old House More Attractive and More Comfortable

**I**LLUSTRATING an old fashioned weatherbeaten cottage which has been remodelled into a modern English Type of home of effective design. The new home is furnished with lightning rod equipment to reduce the fire hazard.



THE OLD HOUSE



AFTER REMODELLING



AFTER REMODELLING



THE OLD HOUSE

**I**F you are contemplating remodelling the old house send your problem to our Architectural Department who will show you how it can be done at minimum cost.



# SUBSTANTIAL MODERN HOMES FROM OLD HOUSES



AFTER REMODELLING

BY making a few changes, additions and eliminations, the old house is converted into a new home in every respect. A home suitable to every neighborhood.



THE OLD HOUSE

SUCH an attractive house deserves the protection afforded by complete lightning rod equipment. Look at the old house and note the transformation wrought by careful remodelling. You can do the same with your old house. Our Architectural Department stands ready to aid you to secure just what you want.



AFTER REMODELLING



THE OLD HOUSE



# How to Make the Old House Attractive and Worth More Money

THIS picture illustrates the advisability of selecting a style for the remodelled house with similar lines to the old house. By applying this rule a great expense is saved in labor and materials.



AFTER REMODELLING



THE OLD HOUSE



AFTER REMODELLING

HERE is an example showing how a few additions, alterations and shingled walls make practically a new home. The lightning rod equipment adds to its substantial appearance. Our Architectural Department will aid you to likewise convert your old house into a home equally attractive.



THE OLD HOUSE



# Make Your Old Home "New"



*AFTER!*

THE houses shown on this page illustrate how old weather-beaten homes can be made new and attractive by first making a few simple alterations and then by over-coating the exterior walls with stucco applied to a patent combination base.



☞ *BEFORE*

THESE are photo reproductions of the actual homes before and after remodelling and over-coating.



*AFTER!*



*BEFORE* ☞



*AFTER!*

FULL information regarding remodelling and stucco application can be obtained by writing to our architectural department, who will be glad to give you full particulars.



☞ *BEFORE*




# Stucco Coating Greatly Increases Property Values

THE exterior walls of the remodelled homes illustrated on this page are coated with stucco applied to a patent combination base. You are fortunate if you are owner of an old home because the old homes were constructed of good material and workmanship.



*AFTER!*



*BEFORE* 



*AFTER!*

PERHAPS the interior of your home needs no modernizing, but the exterior may be unsatisfactory in appearance and wholly out of keeping with the attractive homes of the vicinity.



 *BEFORE*

DOUBTLESS you have considered the advisability of remodelling your old home, but unless you have some idea of how it could be done it is difficult to make much progress. Send us your problems, as we maintain an architectural department especially prepared to furnish the desired information and advice.



*AFTER!*



*BEFORE* 



# Beautiful New Homes from Old Houses



*AFTER!*

THE homes shown on this page are actual examples of old homes remodelled and coated with stucco reinforced with steel fabric.



*BEFORE*

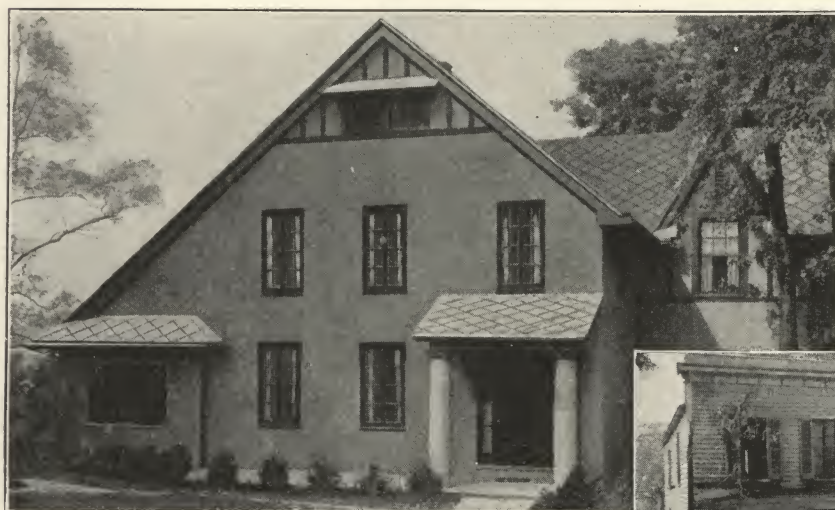
STUCCO coating is equally good for cottages, garages, apartments, duplexes, halls, churches, hotels, stores and other aged and weather-worn buildings.



*AFTER!*



*BEFORE*



*AFTER!*

OUR architectural department is prepared to furnish full information, suggestions and drawings for any kind of remodelling work desired.



*BEFORE*




# “Remodelling” and Overcoating Frame Houses

HERE are only a few instances of how others have remodelled their old houses, economically and permanently, making beautiful modern homes and adding a much greater value to their property beyond the amount expended.



*AFTER!*

*BEFORE* 



THERE is no reason why any well built old house cannot be made equal in design and attractiveness to the surrounding new homes.



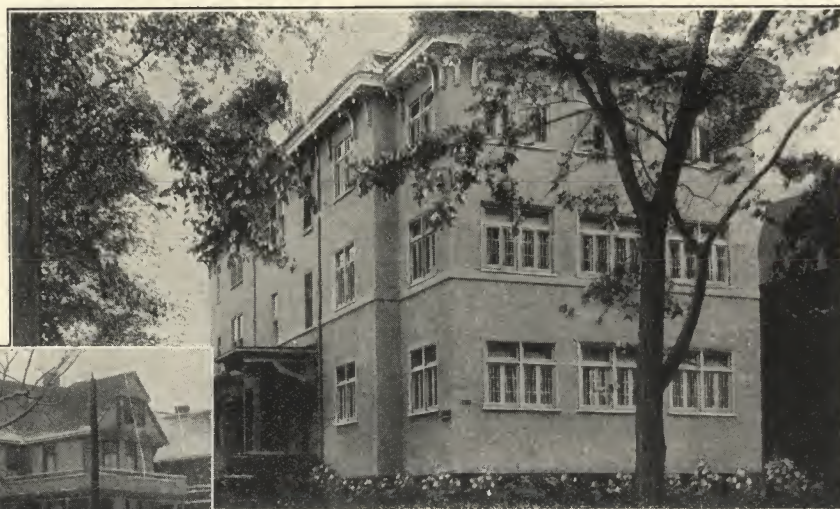
*AFTER!*

 *BEFORE*




THE homes illustrated on this page are all overcoated with stucco reinforced with steel fabric.

If you are interested advise us and our architectural department will help you put your ideas into definite form.



*AFTER!*

*BEFORE* 





# Transform Your Home by Remodeling!



The transformation that remodeling can effect is little short of the miraculous. The walls of this home have been stuccoed on a steel fabric backing with charming results. The new home shows Italian influences in its design.



*This Magnificent Home Resulted From This!*

Steel Fabric Used For Stucco Back

## Old Houses Can Be Made to Look Like New!

Remodeling creates an equity in the home where none existed before. In the case illustrated at right and below an old worthless home has been converted into income bearing property. From a purely investment point of view remodeling pays for itself in a short space of time.



*A Plain House Converted into a Charming Two Family Home*



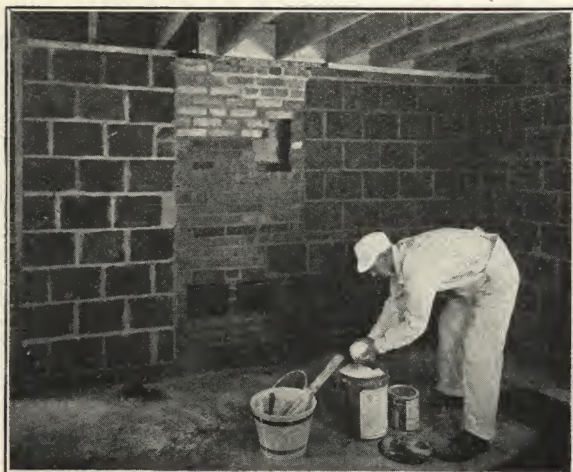
# The Painting of Basement Walls

The painting of basement walls has long been a problem. Dampness in the basement walls makes wall treatment difficult. Whitewash, at the best, is only a subterfuge and must be renewed constantly.

Cement Paint, made from a base of Portland Cement was developed to meet the requirements of masonry painting. Today there are dozens of Cement Paints on the market.

Painting the interior walls of a basement with two coats of a good Cement Paint gives you a dense, hard surface that is permanent. It will not peel, chip, blister or chalk off. Strong soap and water may be used for cleaning it without injury to the surface.

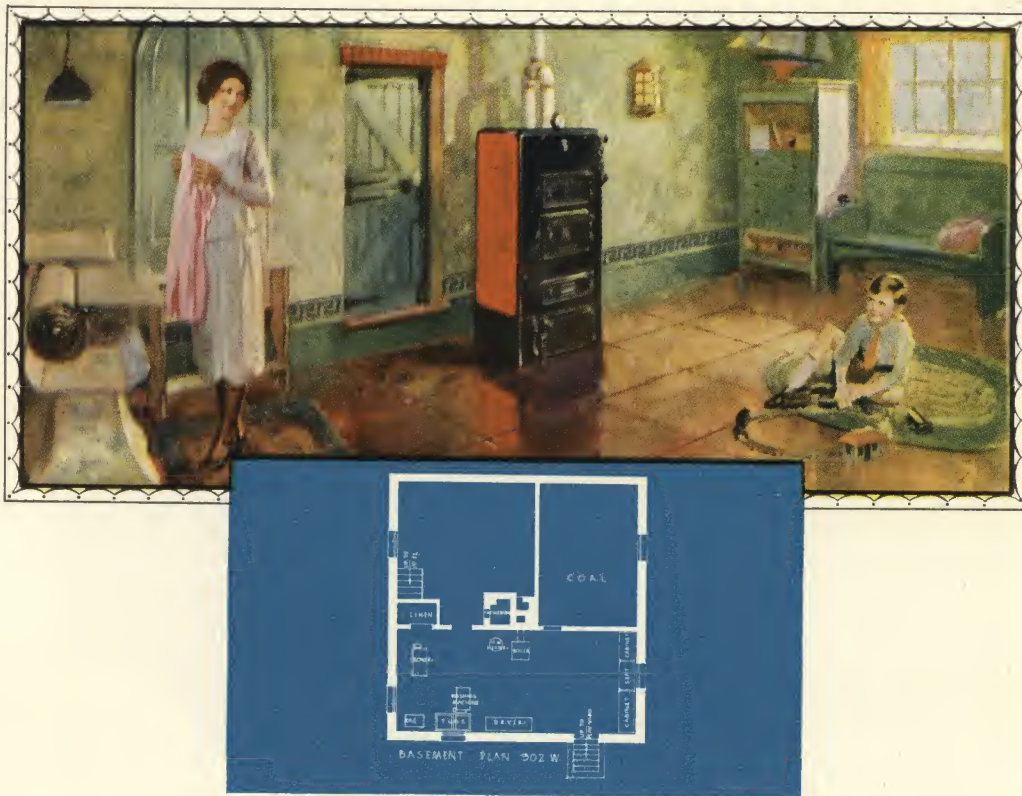
The rough irregularities of most basement walls are matched by its gloomy, damp appearance. Cement Paint gives the surface a clean, white, regular surface that brightens up the interior and increases the light refracting ability of the walls tremendously. In addition most Cement Paints contain material which will make the surface permanently dampproof.



*Illustrations Courtesy of Sandusky Cement Co.*



# The Cellar An Important Factor in the Home



*Courtesy of American Radiator Co.*

Every architect and home builder realizes that in estimating the cost of a new dwelling, the cubic foot measurement is applied to the entire cellar with a cost factor equal to that of any other part of the building. Thus the home owner's investment in the cellar is proportionately equal to that in the main rooms of the house, but the return of that investment, in realty valuation, in rental valuation and in living comfort, is entirely disproportionate. This is the result of a fixed habit due to condition of the past in which the possibilities of developing the cellar in full as a useful or livable place has been overlooked.

Realty experts and statisticians are responsible for the astounding figures that \$1,500,000,000 is invested annually in cellar construction by home builders in the United States and the equally illuminating figures that only 40% (\$500,000,000) of the cellar space is utilized for the boiler, coal bin and laundry, leaving 60% (\$900,000,000) for development and improvement of the cellar.

The great need in the average home today for additional space, whether it be another room for the maid, a work room for the home owner, a gymnasium for the boys or a rainy day playroom for the little ones, has brought about the recent rejuvenation of the cellar. Not only the home owner but architects and builders all over the country see in the cellar an opportunity

to add another floor to the home, and valuable space can be utilized to advantage. The unsightly, disordered cellar is fast becoming a legend of the past and in its place the model, daylight basement is coming into its own.

There is no logical reason why the full area of the cellar cannot be put to profitable and sensible use. With very little additional cost the home owner can add a floor or several rooms to his home, and at the same time make the cellar a more livable place. A comparison of the boiler room of a decade ago with its antiquated equipment to the present modern type of boiler room with its highly efficient beautiful boiler furnishes a splendid example of how the cellar can be developed into a really useful, livable place, thereby utilizing space which formerly was wasted.

One of the main excuses for making the cellar a veritable rubbish heap was the fact that it was a dark and dingy place, but not so in these days of modern equipment with electricity, insulated lumber and casement windows to let in the sunlight. All of these modern improvements,—the electric washer and ironing machine, help to make the cellar the most logical place in the world to turn to when more space is needed, or in planning for the future.

The daylight model basement is not a dream of the future—it is with us right now and is destined for a bright future.



# Using That Waste Room in the Cellar

THE cave dwellers had the right idea, thousands of years before Noah built the ark. They "dug in" for warmth.

Every inch they went below the soil was an inch of added protection from the whims of the weather, cold and hot alike. So they dug deep.

Perhaps it's a throw-back to our remote ancestors that made us put cellars under our houses, for certainly we've made little use of them until recently.

Modern fuels and heating methods had a lot to do with the rehabilitation of cellars. Coal, gas, oil and water heating is a decided advancement over the old fireplace way. These fuels made central heating possible and central heating gave birth to the modern cellar.

For a long time cellars have been devoted entirely to heating, laundry work and store rooms. It is only recently that people have realized the possibility of actually using them for living rooms. Many delightful usages such as billiard room, dancing room, children's play room, library, etc., are in vogue now. With a small expenditure you can convert this neglected space into sanitary, attractive, pleasurable rooms as the illustration below indicates.



*Courtesy of Burnham Boiler Corporation.*



# Home Builders' Industry Is Transformed Since War; Color Works Wonders in the Modern Home Basement



*Courtesy of Richardson & Boynton Co.*

The home-building industry in the United States had undergone a revolution in methods since the period of the World War. Upon the outbreak of the war American industries were overturned by the enormous demand made upon them for the munitions of war, and for the maintenance of armies abroad and at home. Tens of thousands of workmen and their families flocked to the manufacturing centers and the great shipping ports in obedience to the law of supply and demand.

So sudden was this rush that these cities were unprepared and were unable to properly house their new population, with the result that all available accommodations were unnaturally overcrowded.

The building industry was called upon to meet this condition, and responded with the best forms of relief that could be devised under the stress of the national emergency. Great areas of land adjacent to the cities affected were laid out in real-estate developments for homesites. Workmen's cottages and small homes were erected by tens of thousands on these sites by the builders with as great speed as mills and factories could supply the building materials.

Contractors built these homes in many instances from uniform designs, in units of scores and hundreds. Under the pressure of existing conditions it was not to be expected that such homes would be

built as attractively or as substantially as under normal conditions. Such structures could not be expected to give permanent satisfaction to either the builders or the occupants.

But with the return of the country to normal conditions after the close of the war, builders returned to their former principles combining equity, economy and safety in both their building operations and their financial management. The result of this return to old and proven principles is shown in the building contractor's product of the post-war period.

The new home structure, whether it be the pretentious mansion or the suburban cottage is firmly built and glows with color within and without. Attic and bedchamber, bathroom and hall, living room and basement reflect the higher standards of materials and workmanship, and above all show the present-day tendency to an abundance of light and color.

This is particularly true of the modern basement which has been transformed from a storehouse for cast-off materials of the household to a bright and cheerful place in which to live.

The basement today provides space not only for the laundry and the heating plant but for the children's play-room, the billiard table and the workshop. Bright and cheerful colors are used in profusion in the basement, and heating equipment forms a dominant note in this new color scheme.



# THE MODERN INTERIOR

In the following section we have devoted a number of pages to the various features which make the modern home more beautiful and livable. The homeseeker's prime interest lies here for it is inside the home that he is going to live. Obvious as that fact is, it is frequently forgotten.

And so to refresh his memory and to assist the housewife in planning the complete home of today we are giving pictures and descriptions of such important features as the modern basement, the modern efficiency kitchen, the treatment of walls from a decorative standpoint and valuable hints on interior decorating. If your home is to be truly modern, these features must not be overlooked.



*Courtesy of MacBeth-Evans Glass Co.*



# Artistic Wall Treatment

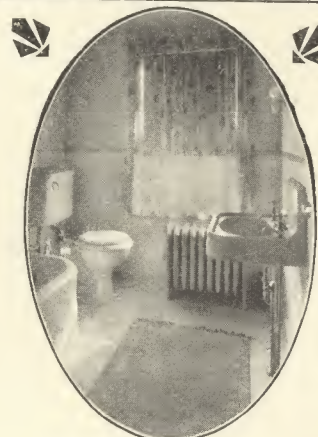
In selecting an artistic wall finish half the decorator's job is done. The background it provides is both neutral in color and interesting in detail. The appointments and hangings of the room are either effective or not depending entirely upon the background against which they are placed. The subject of background is important and should have serious thought from every prospective home builder.



Living Room Looking Towards the Front Door (Below)

The Sweeping Curves of the Well Designed Fireplace and Graceful Door Arches Lend Distinction to the Living Room

The Flat Tinted Walls of this Bed Room Serve as a Neutral Background for Furniture and Draperies



The Sanitary, Up-to-date Bath Room

Illustrations Courtesy of Alpha Portland Cement Co.



# Textured Walls Give Beauty to the Room

Textured walls in various neutral colors lend undeniable charm to the interior of the modern home. There is a suggestion of both the old and the new about them and rooms always look bright, fresh and interesting when textured walls are used.



In spite of their great vogue individuality can be had in textured wall surfaces. There is such a wide range of colors and textures to choose from that all tastes can be satisfied. And there is no doubt but what they provide an admirable background for the artistically furnished home.

*Illustrations Courtesy of Atlas Portland Cement Co.*





*Courtesy of Marb-L-Cote, Inc.*

## Beautiful Period Finishes for Walls

An excellent interpretation of one of the beautiful uneven-surfaced walls of the middle ages. It is not possible to classify these finishes definitely by countries, since similar handiwork is found in Spain, France, Italy and even in England. Their beauty and atmosphere has revived the mode for color and texture in walls. Such effects are easily achieved in the new plastic wall finish.



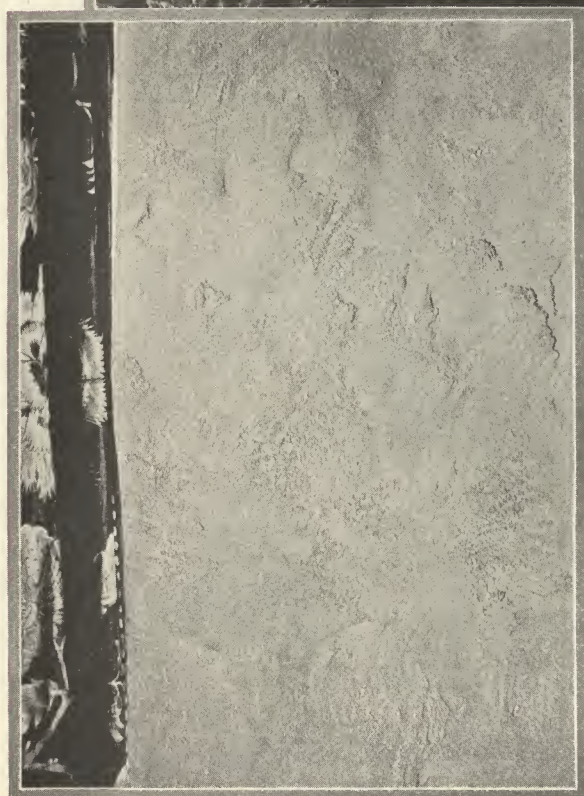


*Courtesy of Crafter Co.*

Texture Paint is a strikingly out-of-the-ordinary wall finish, yet it is different with a distinctiveness that places absolutely no limitations on the type or color scheme of the furnishings in the room. This fact allows free rein to the home decorator who seeks the expression of originality but who fears that a harmonious balance may not be maintained.

It is Texture Paint's unobtrusive blend of artificially created light and shade that makes its subtle appeal as the shimmers and shadows shift and change when the observer alters the angle of view.

A spot of riotous color or a subdued gray finds an equally friendly background in this tapestried texture. For example, the walls of the living room pictured above are finished with a water floated surface, and coated with a glaze tinted with raw umber. The ceiling also is done in Texture Paint, smoother in texture and lighter than the walls. The effect is rich, yet neutral enough to permit hangings of glazed chintz with a black ground, brilliantly patterned in deep rose-red, orange, jade-green, yellow and tan which act as a basis for the color scheme of the room. The piece of Norwegian tapestry over the mantel, the modern skyscraper bookcase, the early American glass bottle and other features of the room are brought into a harmonious relationship by the textured background. The accompanying photograph shows a close-up of the wall texture with a small section of the window hangings.







*Courtesy of Crafter Co.*

This charmingly simple bedroom has walls finished in texture paint lightly textured with a brush and glazed in soft shell pink. The floor is painted black and the trim is a fresh delicate green. The hand appliqued Colonial bedspread in tulip design and the gaily decorated chest in peasant style are notes of interest. Crisp ruffled organdy curtains, a brightly flowered hooked rug and a paper covered screen complete the picture. The photograph shows a section of the wall texture with the picture which hangs over the bed and which was the inspiration for the color scheme of the room.





# The Hallway, An Important Feature

It is from the hallway that the visitor gets his or her first impression of the home. In most homes the decoration of the hallway is overlooked with the result that it forms a bad impression or no impression at all on the guest. With a little time and thought it can be converted into one of the most appealing parts of the home. Study the pictures on this page and see how with a few simple touches the hall is transformed. The use of textured wall finishes helped solve the problem here. In each case they add brightness and interest to an otherwise dark and uninteresting place.



Not all homes have large and impressive reception halls. When the hall is large the problem of decorating becomes relatively easy. In the picture below a charming effect is given by the wall table with chairs on either side. In the picture at the left the hall is much smaller. Here the decorator has placed a small table and a tall standing clock. One large chair suffices. While the monumental effect of the larger hall is lacking there is a coziness and warmth that is inviting and impressive.

The modern artistic home is distinguished by certain features on the inside. First, as has been said, the spaces are but casually and infrequently adorned. Second, the furniture is usually solid and comfortable without being heavy or ornate. Thirdly, color has come into its own. The walls, hangings, upholstery, lamps, even the woodwork and furniture are frequently in bright colors. The result is that the modern home has more verve and life and is a far more inspirational home than that of our predecessors.



*Illustrations Courtesy of Morene Products Co*



# Beautiful Rooms With Textured Walls



In the accompanying illustrations some idea of the importance of the wall in decorating is conveyed. While the rooms are perfectly appointed and please the eye from the first a closer examination reveals large, unadorned wall spaces. Instead of detracting from the appearance of the room, making it look dingy and bare, these large spaces actually improve the appearance of the rooms. They are interesting and decorative in themselves due to their rich texture and tone and force the appointments of the room into a greater prominence.

The preceding generation was only satisfied with a room where every available inch of wall space was covered up. Pictures, oriental hangings, prints, etc., were profusely used. Ideas have changed and fashion today dictates sparsely furnished rooms with a few random prints on the walls and no pictures unless they be exceedingly rare and beautiful originals. One of the reasons for this change is the improvement in wall finishes. Walls are too beautiful to hide today. Some of the best wall effects are obtained by using textured wall finishes.



Open archways are decorative and quite appropriate in English, Spanish, Italian and French homes. The illustration at the left shows what charming effects can be obtained when the open archway is used. The archway acts as a frame to a picture and in revealing but a portion of the next room makes it an appealing and inviting sight. Textured walls are the proper background for the archway. They, too, are exceedingly appropriate in houses of English, Spanish, Italian and French designs.

*Illustrations Courtesy of Morene Products Co*





*Courtesy of the Muralo Co.*

## The Italian Influence

The early Italians made use of textured walls and ceilings to lend additional interest to the color they applied to wall surfaces. They possessed a boldness and firmness which gave peculiar quality to the color of the frescoes of this period. In modern decorations, these old world Italian Wall Textures are employed extensively for their interesting variations in color and tonal effects which create a note of cheerfulness and warmth.





*Courtesy of the Mural Co.*

## Early English Walls

In old England, plastering was practiced as an art. The influence of the early English Craftsmen is felt keenly in modern decoration, in the recreation of the old world wall effects. In Great Hall, Library or living room, in mansion or cottage, there is a warmth in Textured walls—an artistic irregularity which forms a pleasing background for furnishings and drapes.





*Courtesy of the United States Gypsum Company.*

## Textured Walls Lend Charm to Any Home

**T**HIRD dimension" decoration is the answer to the demand for an improved interior treatment to harmonize with modern period style homes. But textured walls and ceilings (third dimension decorations) are not confined to strictly period designs as these beautiful wall treatments add charm and individuality to *any* interior.

The attractiveness of these finishes lies in their soft blends of color and tone, produced by the introduction of light and shade into the wall surface. With texture, the "mood" of a room can be expressed and the soft colors of walls and ceilings can be made to "bring out" furnishings and hangings to best advantage.

Fortunately textured interior treatment is not confined to the pretentious home, as moderate cost permits the average home owner to enjoy these distinctive and luxurious textured interiors. Specialists are not required to produce beautiful textured walls and ceilings as the application of the material is readily done by any competent decorator.



# The Mantelpiece Comes Into Its Own

## *Art Stone a Significant Factor in Increased Popularity of Mantelpieces*

**N**OWADAYS very few residences are built without at least one fireplace.

Once again rooms are planned with the mantelpieces as the dominant feature. The open fire has returned as an important part of domestic life. True grace and significance are found in the modern room designed around an impressive mantelpiece. The pleasing proportions and harmonious detail of this dominant object invariably result in a room having that quality which for want of a better word we call livable. It is gratifying to note that architects insist more and more upon good old designs. A twentieth century design for the cabinet of a phonograph or radio instrument seems right, and a Louis XIV ornament on the case of one of these modern inventions is likely to seem incongruous. But a mantelpiece is essentially a thing of the past, and it is more a mantelpiece in its period dress than in any we might devise for it.



The period in which a room is to be decorated and furnished is more than half established by the mantelpiece alone. The bold carving of the Italian Renaissance, for instance, identifies more than the mantelpiece its ornaments. It gives the room a splendid basis for its entire scheme of decoration. And a room provided with modern furniture is graced with a sense of the past if it contains nothing more of ancient design than a mantelpiece.

To obtain the effect they desire, architects and decorators are relying less upon antique mantelpieces and are using instead mantelpieces of composition art stone. This material makes possible the exact reproduction of period designs in exquisite carvings and the duplication of the color, texture and grain of natural stone as well. The comparatively low cost of art stone and the convenience with which it may be used has added materially to the present day increase in fireplaces.

*Illustrations Courtesy of Jacobson Mantel & Ornament Co.*





*Courtesy of Standard Textile Products Co.*

## Fabric Wall Coverings

It is a long jump from the early reproduction of tiles on cloth for those who could not afford the genuine article, to the fabric wall coverings of 1928 as represented by the lustrous metalline brocades done in gold, silver and bronze and at a glance, looking for all the world like an expensive damask.

Fabric wall coverings have been in use for twenty-five years and the vogue for them steadily increases. What are their particular merits that they should outlive so many fads and fancies that have come and gone during the past quarter of a century?

When applied to new plaster walls and ceilings fabric wall coverings not only supply the necessary decorative design or color, but they really protect the plaster from much damage such as the scraping of chair backs against the walls. The fabrics reinforce the plaster and when cracks develop they will not show through the surface of the covering. If corner cracks occur, due to the settling of the house, it is quite a simple operation to pull down part of the wall covering, repaste it, and thoroughly hide the cracks.

The most popular fabric wall coverings are made of strong cloth, painted by machinery with four coats of durable oil colors. If you prefer painted walls here is paint already applied, with the added advantage of a non-flaking, non-tearing fabric base.

The many kinds of fabric wall coverings now obtainable enable a home owner to secure numerous unique and individual decorative wall treatments as well as the always popular plain and pastel flat finish effects if they are preferred.



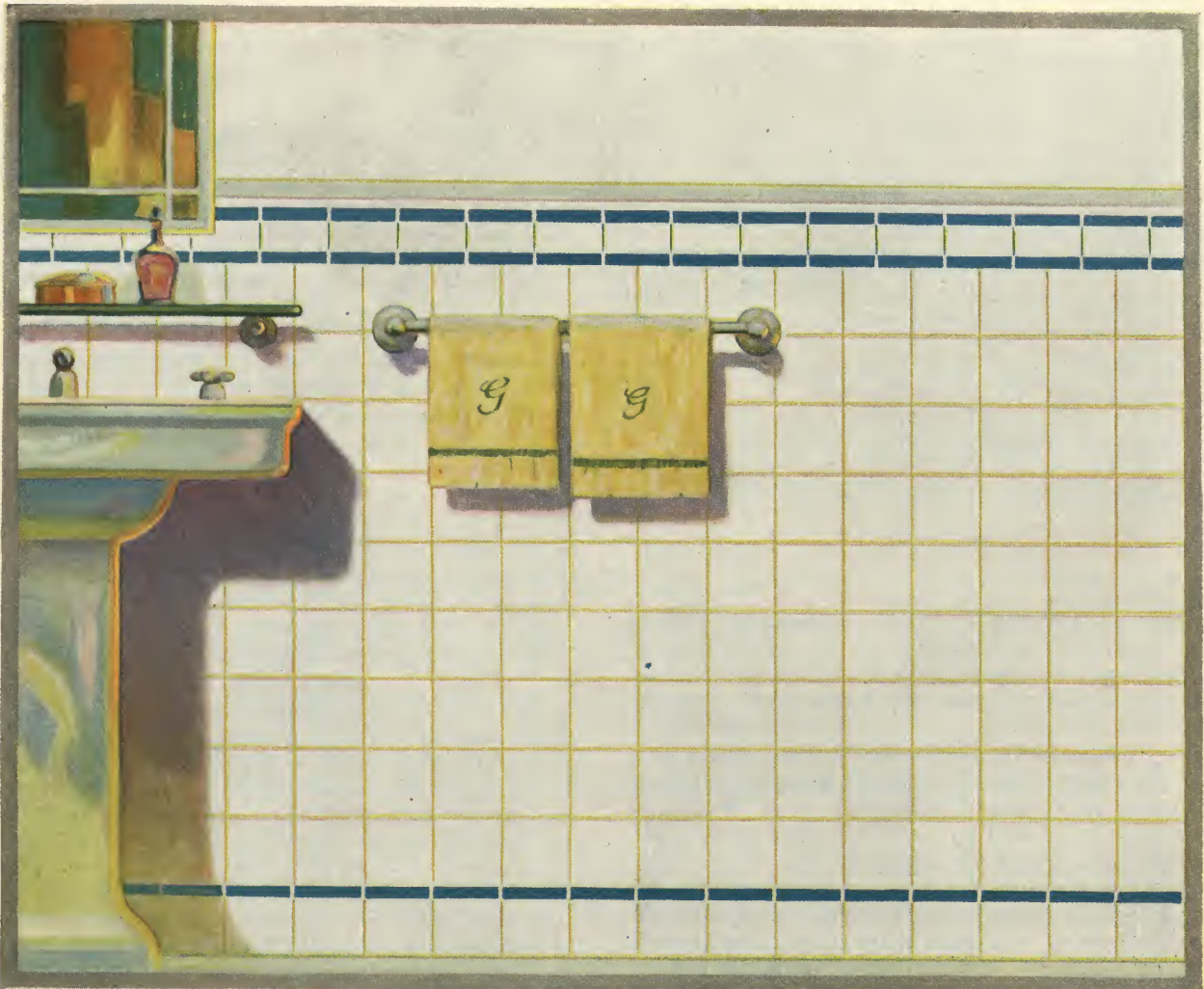
## FABRIC WALL COVERINGS (Cont.)

These fabric wall coverings are hung the same as wall paper with the same kind of paste. They are complete, finished decorations although some decorators and architects specify these fabrics as a base for more elaborate and expensive decorations such as enamelling, glazing, stenciling, mural panels and fresco work. The fabric base protects the finished work from the chemical action of plaster.

Where the matter of maintenance and up-keep cost is a factor, fabric wall coverings have much to recommend them. The surface of these fabrics is impervious to moisture, hence water and grease stains cannot penetrate the surface. Dust, soot and children's finger marks can be cleaned off with a damp cloth without injuring the finish of the fabric in the slightest.

To the person with an old house to remodel and redecorate, fabric wall coverings are indeed helpful. Old walls and ceilings as a rule have been cracked and patched so much that it is next to impossible to do much with them aside from hiding the defects completely by covering them with decorative wall fabrics. Figured patterns are generally best for this purpose as flat finished and glazed fabrics should be favored with flat perfect walls to look their best.

The modern vogue for color in the kitchen is met with a range of brilliant hues in colored enamel-finished fabrics that enable the housekeeper to glorify the kitchen and make it a pleasant place in which to work.



*Courtesy of Standard Textile Products Co.*



# Paints and Wood Finishes That Preserve and Beautify

In the selection of a permanent home there are three fundamentals, which must be followed to produce lasting results—good materials, good workmanship and good Varnishes, Enamels and Paints. The proper surface protection of both the interior and exterior are imperative where beauty and permanency are desired.

The home owner will find good Varnishes, Enamels and Paints a wise and profitable investment, while cheap and inferior materials will prove a source of continued regret and expense.

In exterior house painting select nothing but the highest grade scientifically manufactured Prepared Paint. It will wear longer and more uniformly than the old fashioned product, and will produce the most beautiful and harmonious finished effects. Be sure to have it applied by a Master Painter. Do not follow the advice of any one who does not know paints or painting. The home owner cannot afford to take this chance. Any reputable manufacturer will be glad to send color cards and literature covering all branches of painting. Likewise the Service Bureau of your local hardware and paint dealer will gladly give authentic advice on your finishing problems.

The average person builds but one "home" in a lifetime. This usually embodies his ideal and a great deal of the pleasure and satisfaction to be derived from it in the years to come will depend upon his keeping it well preserved and inviting, both inside and out.

For new work three coats of paint are generally required. It should be applied in thin coats, not flowed on, but brushed out well and evenly. Each coat should dry thoroughly before the next is applied. One coat of paint every few years thereafter will thoroughly preserve your property and save many a repair bill.

In repainting, surface conditions must receive more consideration. If the old paint is firm and free from chips or scale, one coat is sufficient. However, a reputable Master Painter always should be consulted on repainting work.

## Essentials in Selecting Color Combinations

According to its particular type of architecture and surroundings, each home presents its own problem as to the combination of colors best suited to its environment. This selection, however, has been simplified by usage and advanced methods, to the point where any owner can make a suitable and harmonious color selection by bearing in mind the following essentials:

A house surrounded by numerous trees and much foliage appears best in the lighter colors, such as white, gray and cream.

Clear or open surroundings afford a wider range of color selection and will better carry some of the heavier colors, such as green, tan, buff and the lighter shades of brown.

As a rule, the lighter shades should be selected for

body colors, as they are more pleasing and of lasting satisfaction. Heavy greens, browns, buffs and reds are more suitable for trimming purposes or for use on restricted areas of surface.

Also it should be borne in mind that white and the lighter shades give an appearance of added size. Small houses appear larger in lighter colors and large houses appear smaller in the darker colors.

If possible, confine color combinations to two, or at the most, three colors. If you have a large house with more than the usual amount of gable, cornice and trim surface, and desire a varied color combination of four or five colors, consult a Master Painter and have him work out a pleasing combination embodying your ideas.

Variety of color in a residence is brought about through the use of different types of building materials in the one structure, such as cement and brick, stucco and wood, half-timber and half-stucco. These combinations, however, are fundamental, and, if properly combined with paint and varnish, will ripen into rich beauty.



*Courtesy of Breinig Bros., Inc.*

## Suggested Color Combinations

The Colonial type home, with its pillars and wide expanse of lawn naturally suggests white or light cream in solid color, without contrasting trim effects.

The Dutch Colonial type likewise should be light in color. Straw or colonial yellow, with white trim, bottle or bronze green blinds and grayish green gambrel roof is very appropriate. Another suggestion for the Dutch Colonial would be pearl or pure gray

body, with white trim, bottle green blinds and roof.

The hipped roof Colonial style house surrounded by profuse foliage is set off to best advantage with white body, green shutters and red roof.

A less striking effect is obtained with French gray body and olive green shutters and roof.

The American suburban style home, with pyramid roof, which follows no set architectural precedent, is admirably adapted to the soft gray tones with just enough variance in the trimming colors to add warmth. The body might be pure gray, trim white, roof and sash green.

If this color combination appears too cold, a brighter and warmer effect can be obtained with a light drab body, ivory trim and a green roof.

The gable roof style house affords more latitude in the way of color selection. This style of architecture will better stand the darker colors, as they cut down the general appearance of height given by this type architecture. Where the house is surrounded by green foliage, neutral colors and soft brown tones are very desirable, especially where a harmonious green tone is used on the roof. With the sash and entrance in a light color, a striking contrast will result and give the tone needed to relieve the somber effect.

Years ago the name bungalow was applied to a





*Courtesy of Breinig Bros., Inc.*

one-story rambling building, but today it is generally understood to mean a small house or cottage. The various shades of brown with ivory or green trim and a green roof are very pleasing.

Another effective combination is a gray body, with white or ivory trim and sash, red roof and green shutters.

Many bungalows have shingled sides or gables, which should be stained with a good shingle stain. Browns, greens and reds are the most popular shades.

The above suggestions should be of considerable assistance to the owner in making a pleasing color selection for almost any type of residence. Of course, he should bear in mind the fact that shrubbery and other surroundings form the setting with which his exterior color scheme should harmonize.

### Interior Wood Finishing

Interior finishing is more varied providing a more intimate environment for the owner than the exterior finish. In planning a house one cannot be too careful of the finish selected. The most attractive homes are never gaudy, never fantastic. Different kinds of wood require different types of finish, but there is no need of sacrificing any interior decorative scheme through lack of color effects.

The information given here applies only to the finishing of new work, as refinishing involves too many details to cover properly at this time. All refinishing jobs should be discussed first with a practical Master Painter.

Interiors are usually finished according to the purpose for which the various rooms are intended, as well as in agreement with the type of architecture.

White enameled woodwork, a light flat wall paint and an ivory colored ceiling makes a sanitary and pleasing combination for the kitchen, which blends in with the white plumbing fixtures, now found in the modern home. Varnished woodwork in the natural color of the wood is equally satisfactory and requires less care.

The most pleasing flat wall tones for the kitchen are the light shades such as ivory, cream and light tan.

Most any interior decorative scheme can be easily worked out where the woodwork is enameled. Charming sleeping room combinations are obtained where

walls and ceilings are tinted with delicate shades of pink, blue, caenstone, gray and ivory.

A particularly beautiful combination for a reception room where there is plenty of light, is white or ivory enameled woodwork with a caenstone or putty tint flat wall paint. This is also a pleasing combination for the guest room.

Where a varnish finish is desired, on open grained woods such as oak, ash and chestnut, it is necessary to use a Paste Wood Filler.

On close grained woods, such as birch, gum, pine, cypress, fir and redwood, a Liquid Filler may be used.

Living rooms of oak, birch, gum, chestnut, ash or pine with a dull gray lacquered finish, side walls ivory and ceiling in white, make a delightful combination. Rich floor coverings and mahogany or walnut finished furniture will add life to this setting. The floors should be finished natural, in either Wax or Varnish (never use a Liquid Filler on floors).

In the Colonial type residence, white or ivory enameled woodwork with mahogany finished furniture can hardly be improved upon.

While gum or birch finished in mahogany is usually associated with a white enameled finish, there are several tones of brown which are equally as effective when used in conjunction with a tan or russet flat wall finish.



*Courtesy of Breinig Bros., Inc.*

Dining rooms finished in gum or birch and stained a walnut color with furniture to correspond are suggestive of richness and refinement. Side walls should be ivory, cream or a medium shade of tan, and in any of these combinations the ceiling should be kept a light color.

A particularly rich combination for an artistic living room, with or without a beamed ceiling, is a fumed oak color for the woodwork with a cream ceiling and tan side walls.

A darker color combination can be obtained with mission oak finish for the woodwork, light tan for the ceiling and a russet color for the side walls.

Combinations without number are available for almost any room, and the above suggestions are but a few of the many that can be used for the better known and more commonly used woods.





*Courtesy of Concealed Bed Corporation*

## The Bedroom

It is fair to refer to the bedroom as the most important room in the home. It is there that we spend more time than in any other place. Comfortable beds and a cheerful atmosphere are not only luxuries but are necessary to a free and happy existence.

The above illustration shows the perfectly appointed bedroom. Neutral tones are used for the walls and the furniture is done in light colors with appealing designs. The drapes, and rug furnish the bright color splash so essential to a bedroom. In this case a superb color harmony has been effected, one that is quite unusual and pleasing to the eye.





*Courtesy of Concealed Bed Corporation*

## The Importance of Color in the Bedroom

It is only recently that bright colors for the bedroom have had wide usage. Past generations have been contented with somber rooms with white spreads and possibly colored curtains. Today everything is in odd beautiful shades, the walls, the hangings, the rugs, the lamps, the spreads, even the furniture. That it is more beautiful, more inspiring, more appropriate this way, we leave it to your good taste to decide.

Surely the room pictured above has charm. Imagine yourself waking up in these gay, pleasant surroundings. To the woman who spends so much of her time in the bedroom this colorful environment is essential. Here she can be inspired to look her best when dressing for the evening.





### SUN ROOM

*In a minute this attractive sun parlor can be transformed into a restful bed room equally as attractive. The design of bed shown harmonizes with the color and cheerfulness of the furnishings and decorations.*



*Illustrations Courtesy of Murphy Door Bed Co.*





### CHILDREN'S ROOM

*It is hard to decide whether this room is more pleasing as bed room or children's play room. The idea of making the children's bed room\*serve also as play room is a most popular one.*



*Illustrations Courtesy of Murphy Door Bed Co.*





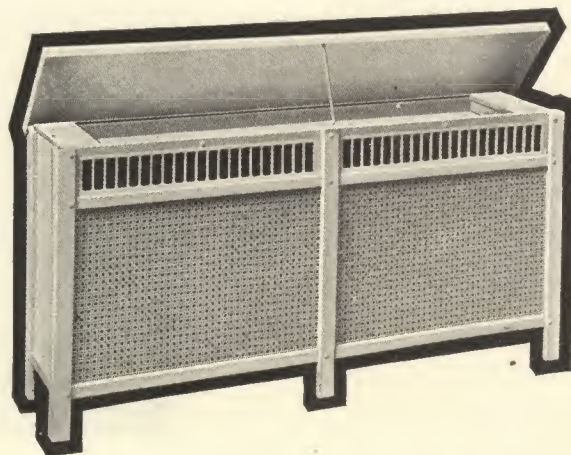
## The Radiator Enclosure—The Artistic Finishing Touch

**T**ODAY there is a rapidly growing tendency to enclose all steam and hot water radiators within artistic metal covers, such as are shown here. These are now obtainable in natural wood finishes and in colors to match their surroundings—in many beautiful designs, both classic and modern.

Besides concealing the naked radiator from view, radiator enclosures have the effect of adding useful pieces of furniture to the home. These serve excellently for small tables of the console type, upon which may be placed a vase of flowers, a row of books or even a lamp for reading.

Another thing of importance is that these enclosures, as designed by the more forward-looking companies, throw the heat out into the room instead of allowing it to ascend to the ceiling. This adds to the comfort of the family, tends to reduce the coal bills, and *does entirely away with discolorations to walls and draperies.*

Then there is the question of humidity. Dry air brings discomfort and lowered resistance to sickness. For best health, the right balance of humidity is essential. Maintaining humidity in the air is very difficult when radiators are exposed, but very easy when they are covered with one of these enclosures. For, out of sight under the lid, is a generous-sized water reservoir which keeps the air moist day and night.



Note the water reservoir underneath the lid. This, when kept filled, maintains the proper balance of humidity in the air necessary for the comfort and health of the family. An end door, scarcely visible, opens to permit adjustment of the valves.

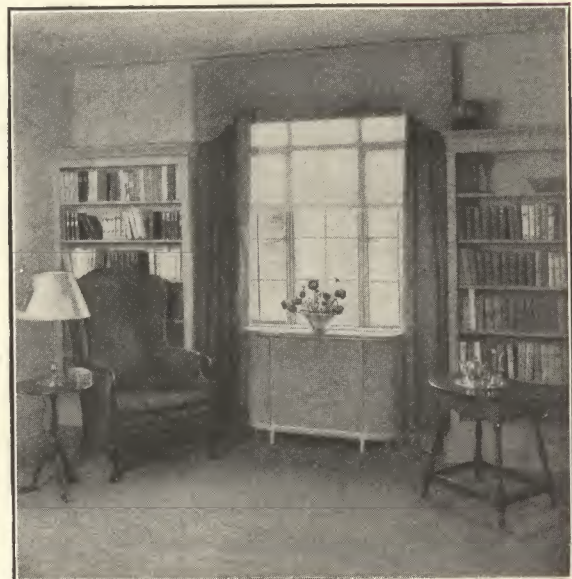
*Illustrations Courtesy of The Hart & Cooley Mfg. Co.*





THE trend toward embellishing even the smallest items which enter the modern home is clearly reflected in the above interior. The warm air register is designed and finished in such a way that it blends in harmony with the color and decorative scheme.

MANY builders and owners have come to realize that radiator cabinets aid in renting and selling. Present day demands for perfect accord of necessary visible equipment with home furnishings do not always permit bare radiators. The market for radiator cabinets has swelled to momentous proportions within the past two years, indicating that they have really become an item of standard equipment.



*Illustrations by Courtesy of Tuttle & Bailey Mfg. Co.*





*Courtesy of Schleicher, Inc.*

## The Luxurious Interior

Not since the days of Louis XIV has such luxury been seen as is found in many modern homes of today. The magnificence that was a king's is now within reach of the average purse. Thanks for these rich opportunities are primarily due to modern American manufacturing which by producing beautiful things on a large scale can bring their cost within reach of all.

Radiator enclosures are invariably to be found in well appointed homes of today. Not only do they disguise unpleasant radiators, but they add distinct beauty to the appearance of the room. The illustration above shows an entrance in the modern style.





*Courtesy of Schleicher, Inc.*

## Color for the Interior

Times have changed and with this change color has come into its own. Where a few years ago we were riding in black automobiles, going home to plain white houses and sombre rooms, we have today brilliant motors, colorful houses and bright, cheerful rooms.

This trend to color is nowhere more beneficial, more inspiring than in interior decorating. Science has definitely established the important part our environment plays upon our well being. Surely then, our thoughts, moods, life itself takes on more verve and significance in colorful artistic surroundings.

The generous use of color then for decorations, appointments, hangings, etc., should be the aim of every woman who is furnishing a new home or refurnishing an old home. She will of course be guided by her reason and taste in the selection and combining of the various colors, but this to a woman is play. Surely by devoting her time and intelligence to this all important subject and letting her imagination have leeway she can achieve results that will be original, artistic and permanently satisfying.





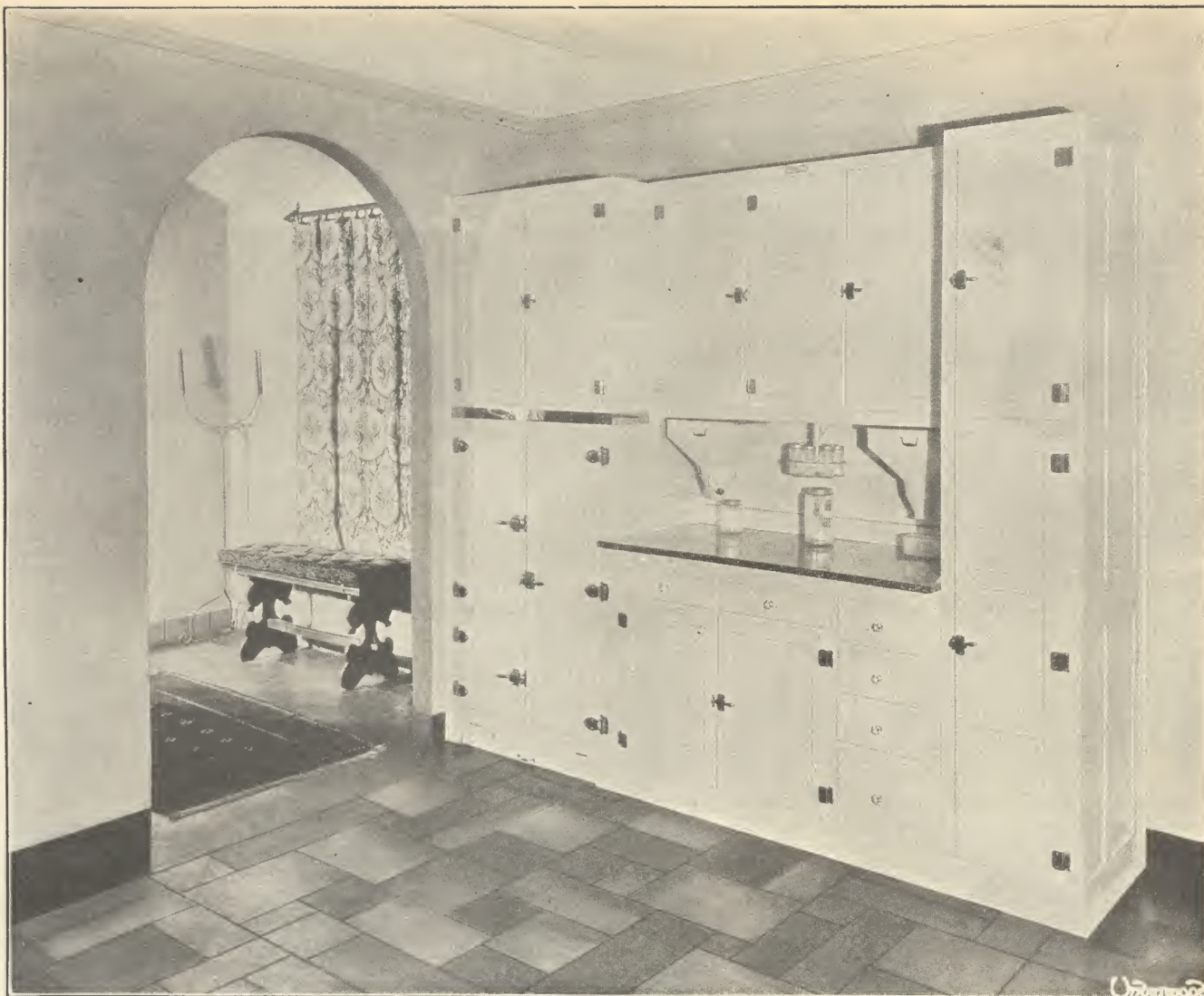
The bedroom is the haven of rest in the home. Everything in it should make for tranquility; the walls, especially, because of their dominating area. For the decoration of bedroom walls, creams, soft yellows, delicate blues and light grays are restful and appropriate colors.

It is not always wise, however, to decorate bedrooms in neutral colors as are illustrated here. For instance, if the rooms have a bleak north exposure, the use of masses of warm colors, that is, colors predominating in reds and deep yellows, will give a feeling of warmth and cheer. Glaring and unshaded rooms will take deeper hues of blues and greens, as these colors absorb more light than they reflect.

It is well to remember that bright colors make a room appear larger. Also, if the ceiling seems too high a slightly darker tint will make it look much lower. Many architectural defects can be optically corrected through an intelligent use of color.







*Courtesy of Hoosier Mfg. Co.*

## Pleasure in the Kitchen

What housewife would not find great pleasure in taking her friends out into the kitchen and showing, with pride, beautiful built-in equipment of this type?

Here is work-table space, and enclosed cupboard and shelf space that will delight any woman's heart. She will find all the necessities for preparing a good dinner within instant reach.

Time is saved and work is lessened in the modern efficiency kitchen. No conscientious housewife with a feeling for order will want to be without one. No home can really be called modern unless it is equipped with a modern efficiency kitchen.



# What Is the Ideal Kitchen?

The ideal kitchen is one which has been thoroughly modernized by utilizing every advantage offered by modern science. Much as American industry has put science and engineering to work in developing the most efficient manufacturing processes in the world, American kitchens have made use of the same ingenuity to divorce drudgery from housework.

Cooking is hardly the same as in the almost-forgotten days of "a pinch of this, a bit of that." Science—domestic science, if you please—has changed all that. True, there's still a certain amount of magic in cookery. The modern appliances can only help—they cannot cook the meals themselves.

Science has done something else for the housewife. It can save her energy. Careful experiments have shown that a logically-planned kitchen—one which is properly equipped—can actually reduce, by as much as 75 per cent, the number of steps required in the preparation of a meal. Even more energy can be saved by the arrangement of supplies and utensils so that they may be reached in the order of need. Thousands of housewives are finding the kitchen work is easier than ever before because of what invention and science has done for them.

Modern kitchens, then, have already approached to the ideal point where the necessary work can be done with a minimum of effort. This has been the direct result of the scientific research and experimental work done by many of the large manufacturers of kitchen equipment of various kinds.

The essential elements of a convenient kitchen divide themselves into five divisions. These are: first, the stove; second, the sink; third, the refrigerator; fourth, the work-table; fifth, storage space. The last two divisions have been combined in kitchen cabinets and wonderfully developed by kitchen cabinet manufacturers.

Notable improvements have been made in recent years in all these lines. Gas ranges have been greatly improved; cooking temperatures have been studied by the manufacturers and it is now possible to cook scientifically rather than by guesswork. Electric stoves, also, have been developed. The kitchen sink has been studied and improved with a view to convenient service. Even the chore of dishwashing has been made much less arduous by modern devices of force sprays and drying racks. The big development in the refrigerator field has been electric refrigeration.

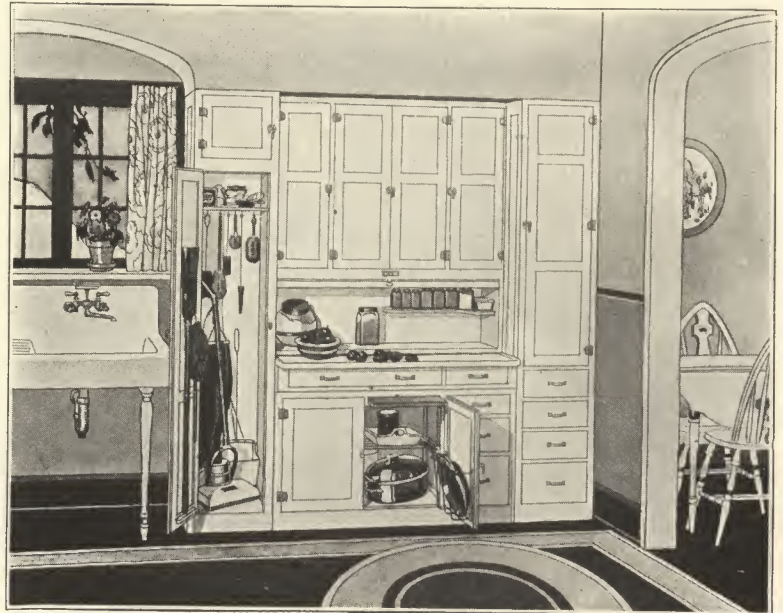
Kitchen cabinets have become more and more essential to the modern kitchen and the improvements in this field have been great. They have become more and more practical and the time has already arrived where a kitchen is scarcely complete without one. In the planning of homes the kitchen space is often laid out with chief reference to the kitchen cabinet, either built in or detached.

Complexity and elaboration is not the important characteristic of these modern kitchens but rather simplicity—the logical, obvious arrangement suggested by countless, careful experiments.

The big kitchens of the past are seldom to be found nowadays. They are not needed with the compact arrangement which is possible through scientific planning. The old, large-sized kitchens required many more steps in a day than the modern, efficient ones; and nowadays, even in the most costly, spacious homes the kitchen will not be

found to be large compared with the dimensions familiar in the past.

When it is said that science and engineering have been applied to the kitchen it should not be thought that the experimentation and research which have resulted in these great modern conveniences have been in the hands of mere theoretical efficiency experts. The important developments have been suggested by those with actual practical experience in kitchen work, who have qualified as kitchen experts. For only those who are thoroughly familiar with the practices which make up a busy day in the kitchen are fully qualified to design the type of equipment that is really helpful. This is especially true of two of the five major divisions of kitchen work—work table and storage space. The other three important divisions—range, refrigerator and sink—must be properly grouped around the



*Courtesy of Coppes Bros. & Zook*

work table and storage space if kitchen movements are to be properly simplified.

For all work in the kitchen begins and ends with the work table and storage, or cupboard, divisions. Recognizing this important fact, manufacturers of kitchen cabinets who have engaged in kitchen research and developed their products through exhaustive domestic science tests are producing units of equipment that revolutionize kitchen methods. Their successful engineering work has had the most widespread effect on the lives of the housewives of the country. Their kitchen cabinets combine the two chief divisions of kitchen equipment mentioned above—not only a splendid, open work table but storage space all around laid out for the greatest convenience.

Among the features of these modern kitchen cabinets are cupboards for food staples and dishes, sliding trays of wood and wire for heavy pots and light pans, racks for extract bottles, metal drawers for cake and bread, convenient bins for flour with sifter devices attached and a place for a mixing bowl underneath, hooks for paid and unpaid bills, holders which keep cookbooks open on an eye level, odorless bread boards, wide-mouth sugar bowls that roll in containers and face in any direction, complete sets of spice jars including jars for tea and coffee and a convenient





shelf to fit them precisely, cutlery drawers that extend with the porcelain work table top, linen drawers and a host of such conveniences all properly placed with relation to one another and all within easy reach.

By the arrangement of the cabinet the work can be charted almost automatically through the shortest and easiest channels. Actual experiments have shown that with such a layout a woman can actually save 1,592 steps out of the 2,113 generally necessary to prepare three simple meals without such convenience. Scientific concentration does it, and is achieved through a knowledge of kitchen routine and not merely by building in cramped cupboards. The latter is more likely to clog than to expedite kitchen work.

The placing of the various work units in a kitchen is highly important and should be given careful thought. The kitchen cabinet with its central work table and surrounding storage space should stand near or at the side of the refrigerator for the best results, while the range may be most logically situated at the other side of the cabinet. The sink should be near a window.

Still greater convenience may be attained by use of a complete unit worked out by the manufacturers for the so-called "one-wall" kitchens. This has a combination sink and work table in the middle. It has a range above cabinet drawers and compartments on one side. And it has a refrigerator on the other side.

An infinite variety of combinations can be made up from standard cabinet units. The most popular are those which contain a kitchen cabinet in the middle, a closet for brooms, vacuum cleaner, cleaning compounds, etc., on one side and a cupboard for dishes on the other.

Still another popular combination is similar to the above but containing a refrigerator either in the base of the cabinet or between cabinet and dish cupboard. Besides these there is a combination containing a butler cabinet taking the place of a pantry. Other standard units are available and in a multitude of sizes, making it possible for the architect or owner to plan a built-in combination for every need, for any size space and any arrangement of doors or windows.

One of the latest devices in connection with kitchen cabinets is the electrified unit which is equipped with a convenience outlet. Electric toasters, percolators and the like may be attached by short cords. This keeps all electric appliances in the kitchen—the logical place for the prepara-

tion of food. In fact, the electrified cabinet provides, for the first time, a definite place for electric appliances. It is a big idea, applied in a simple manner.

The use of electrified cabinets eliminates the long-cord attachment customary when toasters and such are used in the dining room. The longer cords have often been found easy to hit accidentally in such a way as to overturn the attachment.

Some of the modern kitchen cabinets which are wired for electricity also have an electric light conveniently placed.

Another modern development connected with kitchen cabinets is a breakfast table which pulls out from the cabinet and which offers a highly convenient place for the serving of breakfasts. This slides in and out, requires no additional room in the cabinet and does not interfere in any way with the use of the cabinet for the preparation of a meal.

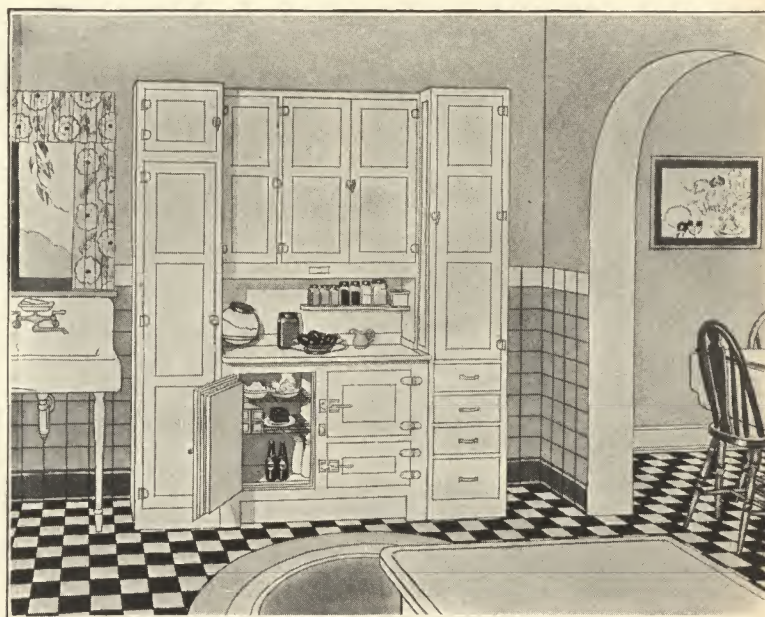
Because of its close relation to linen, dishes, condiments, etc., this breakfast table offers marvelous convenience when a meal is served on it, especially in those cabinets that are electrically fitted for toasters, percolators, etc. Everything is

at hand for the preparation of the meal; everything is quickly and easily put back.

Besides, these breakfast tables are a great convenience at the time of preparation for big dinners or parties. For instance, they provide a great expanse of additional table space where salads and desserts may be placed until time for serving.

Scarcely any two kitchens are alike; each presents its own problems but with the wide variety of equipment now on the market it is possible for every home to have equipment well adapted to the household's special needs and so planned and arranged as to expedite housework.

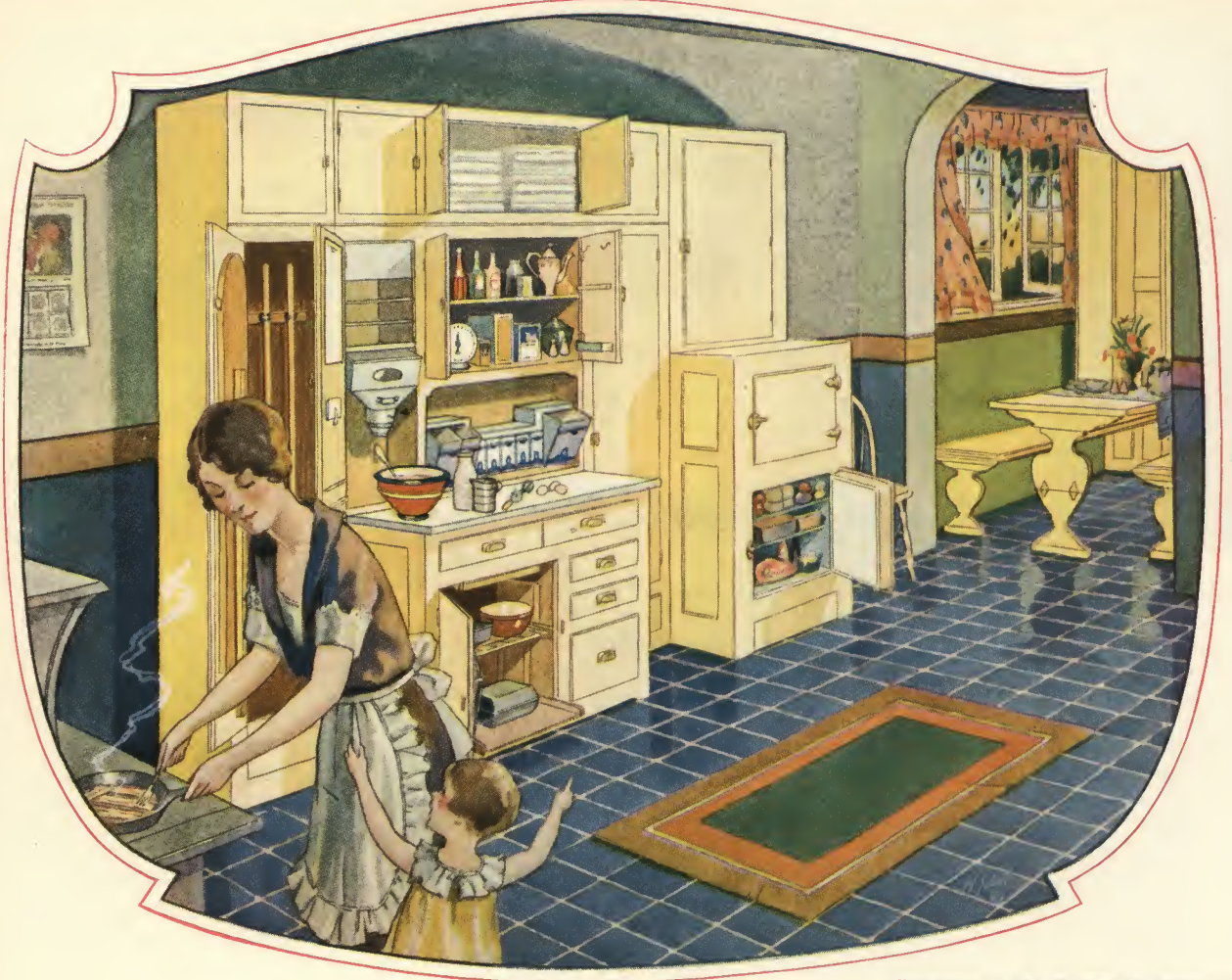
And the whole household will reflect the benefits of a well-planned and well-equipped kitchen, which organize the kitchen routine, make possible the necessary work with the minimum of wear and tear on the muscles, nerves and energy and give the housewife more time for other activities. The big dividends paid by kitchens which are properly organized are in the leisure which they give to the wife and mother.



Illustrations Courtesy of Coppes Bros. & Zook



# The Correct Kitchen for the Modern Home



*Courtesy of The Wasmuth-Endicott Co.*

The old fashioned kitchen is gone. No more does the housewife have to put up with large pantrys, store rooms, countless cupboards, tables, etc. Today in a kitchen, half the former size of kitchens, she has more room. The primary reason for this economy in space is the kitchen cabinet with its compartments and devices for all conceivable kitchen accessories.

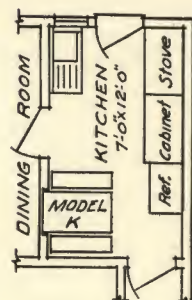
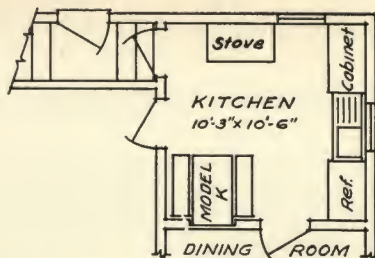
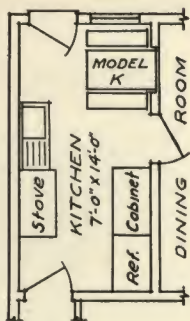
Today the housewife spends about one-third of the time she formerly had to spend in the kitchen. Statistics show that she takes about one-fourth of the steps she used to take in preparing a meal. Furthermore her kitchen can be put in order in a minute's time whereas in the past it frequently took until bedtime to "clean up."

Surely no conscientious housewife will consent to be without an efficiency kitchen today. There is no reason on earth why her work should not be made a pleasure and her drudging time given over to other pursuits. The modern kitchen makes this possible.

If you are contemplating a new home for yourself be sure and include the modern efficiency kitchen and the built-in breakfast nook. The enjoyment derived will pay for its cost tenfold. And if you are building to sell do not fail to include these items. They will be among the leading selling points of the home.



# Bigger Kitchens With No More Building!



Three of an unlimited number of possible layouts for kitchens employing the disappearing dining set mentioned in the article. Note that it provides the usefulness of a dining alcove without extra building.

What determines the size of a room—its dimensions or its usability? Look at the floor plan sketches above of three “model” kitchens.

Not one of these rooms contains more than 108 square feet of floor space, and one has only 84 square feet—yet each one contains the equivalent of a dining alcove or breakfast nook in its usable floor space and its built-in equipment!

This built-in equipment consists of a disappearing dining set. When not in use for dining, the table and seats (for four adults) fold into a wall cabinet and are concealed behind paneled doors. See the photographs below.

Thus there is no need to build a dining alcove in order to have dining convenience in or near the kitchen. Nor are there any table or chair legs in the way to make cleaning the floor difficult. And no chairs have to be carried back to the living room after the meal is over.

The table top of this set is made of porcelain enameled steel. Hence it serves as a work table when not

**The disappearing dining set makes a dining alcove unnecessary, yet gives more free floor space in the kitchen.**

required for dining. Either of the folding seats can be let down so that the kitchen worker can sit down to her work if she chooses.

In these days of hurried breakfasts, servantless houses, and quick meals, eating in the kitchen is a growing custom. On cold, raw mornings, it is far more cozy than eating in the cold dining room, and on hot summer days, the kitchen dining set is handy to the ice-box with its cold foods and drinks.

The kitchen dining set is especially appreciated in the household with children, for it provides them a dining place of their own where their muss and noise do not bother the grown-ups. Similarly, in the large house, it provides pleasant dining accommodations for the servants.

The disappearing dining set has found ready acceptance by the best builders in New York, Chicago and other large cities, yet its cost is well within the allowance of the workman's cottage! Builders who have had experience with it pronounce it an excellent sale and rental feature whose value is out of all proportion to its cost.



The table of the disappearing dining set folds up with the inside end going up, thus all crumbs, water, etc., left on the table, fall off onto the floor instead of into the cabinet.



The table top is of porcelain enamel on steel, hence it makes an excellent work table when not required for dining. The kitchen worker can sit as she works on one of the folding seats.



Here the table is set for breakfast. It will comfortably seat four persons. The table and seats require a floor space when down as shown. 53 inches wide and 40 inches long.

Illustrations Courtesy of Fain Manufacturing Company



# Remarkable New Window Glass Admits Ultra-Violet Rays of Sunlight

*Brings the Health Benefits of Outdoor Sunlight Indoors*

We humans have always had a weakness for sunlight as is evidenced by the many phrases that occur frequently in both the spoken and written language. We speak approvingly of people and more especially of children with "sunny faces" and bend most of our efforts to achieve "our place in the sun."

All this is natural, instinctive, because the sun is the chief source of life. Without sunlight all vegetation would cease. It is significant that in the opening passage of Genesis there is recorded this command, "Let there be light."

We simply cannot live without sunlight. While it is a shock to some people, nevertheless science has known for many years that ordinary window glass does not admit the health elements of sunlight—the ultra-violet rays. It is the presence of these rays in sunlight which prevents rickets, that dreaded bone disease in children, builds up our resistance and gives us that feeling of vitality and energy which we experience during the summer when out-doors so much.

In recent years science has made what many shrewd observers refer to as the greatest advance towards the better health of everybody living under modern civilized conditions. Thomas Edison has recently announced that the commercialization of the new ultra-violet ray glass is one of the outstanding achievements for the year 1927. We now have several types of window glass that are permeable to these valuable health rays in sunlight.

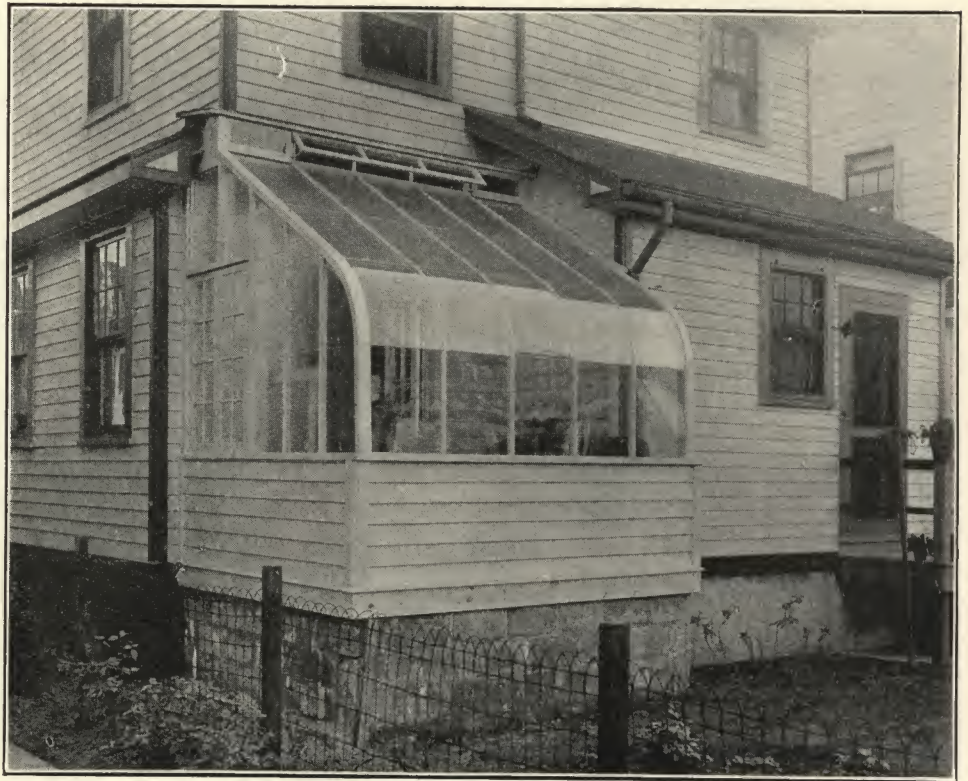
Professor F. E. Lamplough of Cambridge, England, is the pioneer in this field of ultra-violet ray window glass and the product which he invented is now being widely used in England and America. Naturally American enterprise has followed and other glasses are now available, which likewise transmit in varying degrees the vital health element in sunlight.

Some of the results accomplished through the use of this new glass are so startling that they seem almost incredible. For instance, in Smethwick, England, Dr. J. Bell Ferguson, the school medical officer, arranged for two classes of boys of similar ages to be used as a biological laboratory test of the relative value of this new ultra-violet ray glass as compared with ordinary window glass in school rooms. The children's heights and weights and blood tests were taken at the start of the school year. At the end of the year the children in the room glazed with ordinary glass gained an average of only 2 4-5 pounds in weight; in height they gained only 1½ inches.

The children in the room glazed with the new ultra-violet ray glass gained 6 1-10 pounds; in height they gained 1 9-10 inches and their absences due to illnesses were decreased over 40%.

Other tests of the new glass revealed results equally astonishing, so much so that Lawrence Veiller, a housing expert in New York City, has taken the stand that eventually it will be against the law to use window glass which robs children of the healthy part of sunlight, especially those who must remain in school five hours a day, five days a week, the better part of the year, between the ages of five and fifteen. He argues that whereas we have laws prohibiting the sale of milk without cream, that we therefore will eventually pass laws against the use of glass which skims the cream from sunlight.

Such an event is probably reserved for the future, but for the present through the availability of this new glass, we can utilize it to our own personal advantage in the homes in which we live.



Vitaray Playroom for Children

*Illustrations Courtesy of Orcutt & Company and Vitaglass Corporation*



# There's Health in Ultra Violet Rays

It is a universally recognized fact that most people are in far better health in Summer than in Winter. There are several reasons for this. One is that during the warmer months windows and doors are open; fresh air is circulating through the house day and night; lighter clothing is worn and we spend more time in the sunshine. During the Winter we are mostly in super-heated houses and offices, and when out of doors are subjected to constant and great changes of temperature; the days are shorter and we spend very little time out of doors.

But in Spring, Summer and early Fall, we are out doors much of the time—golf, tennis, swimming, automobiling, horseback riding, or even sitting on the porch. We attribute our improved health to active exercise, and that undoubtedly has a great deal to do with it.

But there is another influence at work which, until recently, we have known very little about—that is, the short wave length ultra violet rays. Scientists tell us that these are the rays that have a most important effect in increasing the supply of red corpuscles in the blood, curing certain diseases in children (rickets, for instance) and overcoming fatigue. When we are out doors, whether in direct sunlight or not, these rays come to us unobstructed. They are the rays that develop a beautiful coat of tan; and while tan does not necessarily indicate robust health, a tanned skin is an evidence of having been exposed to the healing effects of ultra violet rays which have been doing a great amount of beneficent work.

It has been proved conclusively that these rays will not penetrate ordinary window glass. They are almost completely shut out; and that is too great a loss to be endured when there is a means within the reach of everybody to remedy it. A new type of glass has been invented which *does* admit the ultra violet rays. Almost miraculous effects have been obtained with this glass, and it is now being rapidly adopted by many of the leading hospitals throughout the country. Prominent office buildings have been equipped with it because of the better health and consequently better work of employees. It is being put into sun porches in place of ordinary window glass.

An interesting development is the building of specially constructed sun rooms in the form of small conservatories, which are made in several different sizes and come all ready for erection, together with the new violet ray glass. One great advantage of this form of sun room is that the ultraviolet rays are admitted through the glass roof as well as through the ends and sides. These sun rooms can be attached to almost any part of the house and really admit additional light into the adjoining rooms.

This new type of violet ray sun room commends itself as a play room for children, a sitting room for those who are advanced in years, or for invalids and convalescents, and as a delightful lounge for those who are perfectly well.



Courtesy of Orcutt & Company  
and  
Vitaglass Corporation



# The Modern Builder Makes the Sun-Room a Health-Room



**S**CIENCE has made its contribution to the building industry.

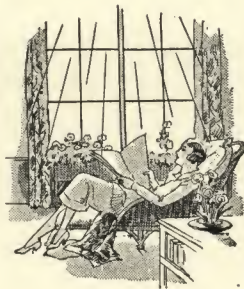
At last the sun porch can have real sunlight.

Window glass is now available which transmits the ultra-violet, the health-giving rays of the sun and brings outdoor health indoors. Some of this glass is priced so reasonably that it can be used for general glazing purposes.

## Health in Sunlight

How often have we heard the question asked: "Why can't we acquire the same healthy coat of tan in the sun-room that we do outdoors?" The answer is that "tanning" comes from exposure to the sun's invisible ultra-violet rays which are more or less "shut out" by ordinary window glass.

Physicians tell us that these same rays combat disease germs, stimulate everyone mentally and physically, and aid in the natural development of growing bodies.



## The Essential Rays

We know from experience that "unfiltered" sunlight is nature's own tonic. Since the time of the ancient sun worshippers, people have correctly connected sunlight with life—it has remained for modern science to discover that the ultra-violet rays of the sun are the rays that are essential for health.

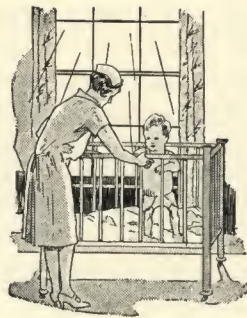
## Indoor Sun Baths

It is obvious that the sun-porch more than any other place should be "open" to these essential rays of sunlight. With the proper glass in the windows the sun-porch becomes a health spot where sun baths may be taken every day of the year without the necessity of leaving the warm room.



## Health Insurance

Such a room is a permanent investment in *health*—an investment that pays continuous dividends to the entire family by keeping them in robust health and cheerful frame of mind throughout the year.



## A Sun-room for Every Home

With the advent of health glass came a noticeable increase in the number of homes equipped with sun porches. Families have learned that the health porch is as important a part of the house as the kitchen or bedroom. Progressive builders throughout the United States have found

the installing of health rooms to be a profitable end of their business.

## The Importance of Selecting an Efficient Health Glass

In selecting a health glass for the sun-room, here are four important points to be considered—

(1) The glass chosen must transmit a satisfactory volume of the sun's ultra-violet rays.

(2) It must be a hard glass—one that will not deteriorate on exposure to sunlight and lose its capacity of ultra-violet ray transmission.

(3) It must be of high quality and beautiful appearance—suitable for the finest buildings or residence.

(4) It must be a clear glass, one that does not have a depressing effect upon the occupants due to its failure to transmit plenty of daylight.

If the glass you select fulfills these qualifications, you may expect to create a tremendous amount of good will among your customers.



## Meet Modern Needs

Be prepared—modern civilization is tending more and more toward indoor life—the public seeks a substitute for the physical stimulation that formerly came from life in the open. Even today buildings glazed with a health glass have a decided advantage in sale or rental competition.



Illustrations Courtesy of American Window Glass Co.



# A PRACTICAL PLAN SERVICE

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The Plan Service available in connection with HOME BUILDERS CATALOG is the most comprehensive and practical ever devised for the benefit of building contractors. Every one of the 577 plans of frame, brick, brick veneer, tile and stucco houses and garages illustrated in this great reference work of home building construction has actually been built. You can see in HOME BUILDERS CATALOG an illustration of a home as it will appear when finished—made from a photograph—the house, itself, surrounded by trees, lawn and flowers. This is what home builders want—photographic illustrations, not imaginary drawings of what you propose to build for them.

We maintain a large force of architectural designers, engineers and estimators, all men of long experience and proven ability. Our homes are thoroughly modern in every particular, yet designed with a practical knowledge of building materials and construction methods that enable the builder to keep the price within limits that the average home owner can afford.

HOME BUILDERS CATALOG is published by the same men who for 12 years have conducted the Architectural & Publicity Bureau—the Bureau whose plan service is used by eleven of the leading Retail Lumber Associations of America.

Because of our long experience in this line of work, our large and capable staff of building experts, and the great volume of business we do, we are able to produce and furnish blue-print plans, specifications, material lists, etc., of higher quality and at a lower price than any other concern.

HOME BUILDERS CATALOG is our latest and most effective aid to home builders—a book that will be instrumental in building more and better homes.

This book illustrates the largest assortment of original and modern home designs yet published, and we believe will completely answer the individual needs of every enterprising and up-to-date builder. All plans were selected for their distinctive architectural merits and adaptability to the modern trend in home design and construction.

The illustrations include:

- 230 Homes of All Frame Construction
- 12 Summer Cottages of All Frame Construction
- 169 Homes of Brick and Masonry Construction
- 133 Homes of Stucco Finish for Outside Walls
- 63 Garages of Popular Types,

together with additional plans of homes, illustrated with and without basements, totaling 577 different plans.

## Detailed Blue-Print Working Plans

The blue-prints for each home or garage include all elevations, floor plans, sections and details necessary to enable the contractor to erect with a clear understanding and show all dimensions and notations, leaving nothing to guess work, thus saving much time and labor also insuring against errors.

## Classified Guide for Listing Quantity of Materials

This includes 16 pages, made up in systematic form that enables the builder to take off accurately and quickly, quantities of materials without danger of omitting important items.

## Specifications and Blank Contract Forms

With each set of plans are also furnished, Specifications and Contract forms.

The Specifications enable the contractor to erect buildings in a manner satisfactory to the owner and state clearly all essential terms of the agreement between owner and contractor, thus helping to prevent misunderstandings and disputes.

The Contract Forms give legality to the agreement set forth in the Specifications.

## Plans Altered to Suit Home Owner

We maintain a Service Department for the purpose of co-operating with the builder in altering blue-print plans to conform to the wishes of his customers. Our charge for such alterations is very reasonable.



ILLUSTRATION IS ABOUT 1/4 ACTUAL SIZE



PRIVATE PLANS

SHEET 1. - TOTAL SHEETS 3.

NOTE: ALL ELEVATIONS AND FLOOR PLANS ARE MADE TO A STANDARD SCALE OF 1/4-INCH TO FOOT.



ILLUSTRATION IS ABOUT  $\frac{1}{4}$  ACTUAL SIZE



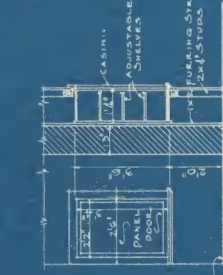
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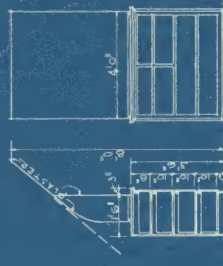
# SPECIMEN OF BLUE PRINT WORKING PLANS

ILLUSTRATION IS ABOUT 1/4 ACTUAL SIZE

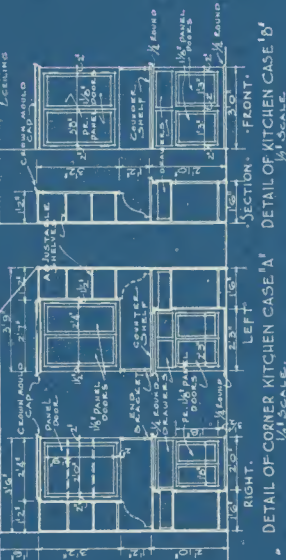
| KEY TO WIRING SYMBOLS       |     |
|-----------------------------|-----|
| TRANSFORMER                 | 1   |
| METER                       | 2   |
| LIGHTING PANEL              | 3   |
| TELEPHONE OUTLET            | 4   |
| CEILING OUTLET              | 5   |
| CEILING LAMP RECEPTACLE     | 6   |
| MIDDLE CONFERENCE OUTLET    | 7   |
| CEILING OUTLET              | 8   |
| CEILING LAMP RECEPTACLE     | 9   |
| SPECIAL INFUSE OUTLET       | 10  |
| SPECIAL INFUSE SHIELD PANEL | 11  |
| BELL                        | 12  |
| 3 WAY                       | 13  |
| 2 WAY                       | 14  |
| 3 WAY                       | 15  |
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| 2 WAY                       | 100 |



FRONT  
DETAIL OF TOWEL CASE IN BATH ROOM  
1/2" SCALE.

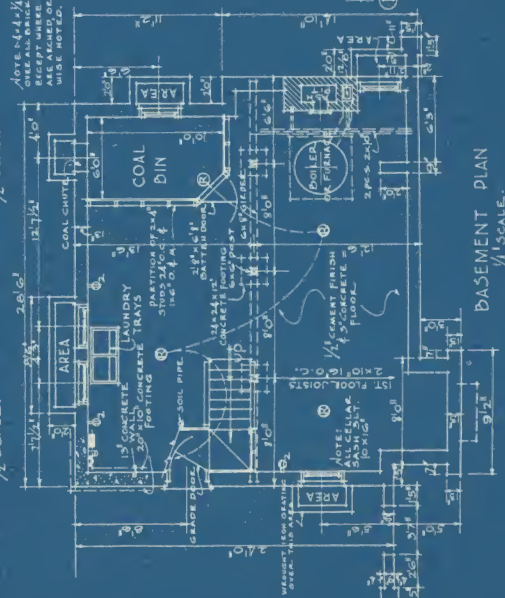


FRONT  
DETAIL OF CHEST OF DRAWERS-SEWING RM.  
1/2" SCALE.

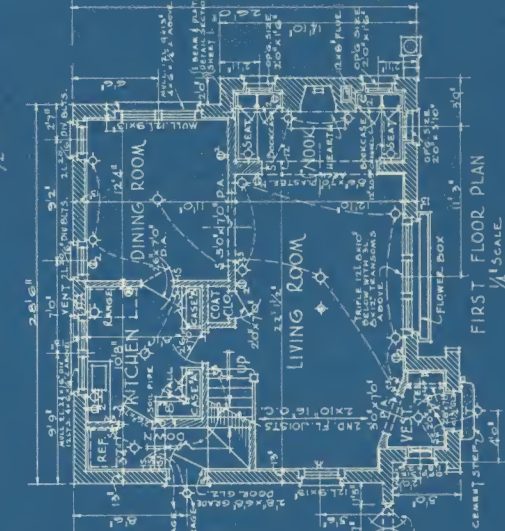


LEFT  
RIGHT  
DETAIL OF CORNER KITCHEN CASE 'A'  
1/2" SCALE.

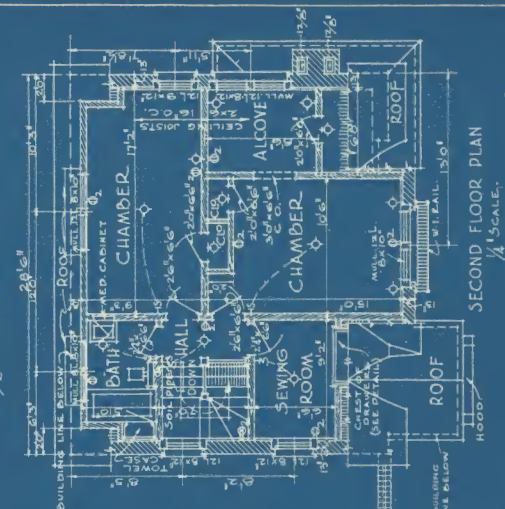
DO NOT SCALE  
EXCEPT WHERE OPENINGS  
ARE INDICATED BY OTHER  
WIRING SYMBOLS



BASEMENT PLAN  
1/4" SCALE.



FIRST FLOOR PLAN  
1/4" SCALE.



SECOND FLOOR PLAN  
1/4" SCALE.

"THE ALLYNS"  
PRIVATE PLANS

SHEET 3 - TOTAL SHEETS 3

NOTE: ABOVE IS SHEET NO. 3 OF THE COMPLETE THREE-SHEET SET OF PLANS.  
NOTE: ALL ELEVATIONS AND FLOOR PLANS ARE MADE TO A STANDARD SCALE OF 1/4-INCH TO FOOT.



# MATERIAL LISTING GUIDE

## Reduced Facsimile of Material Listing Guide

Actual Size:  
8½x14 inches

16 Pages to  
Each Listing  
Guide

Estimated By: \_\_\_\_\_  
Checked By: \_\_\_\_\_  
O. K'd By: \_\_\_\_\_

Material List for The \_\_\_\_\_

SHEET NO. 1  
TOTAL SHEETS 15

| QUANTITY                                   | SIZE | ARTICLE AND DESCRIPTION    | FEETAGE | PRICE | TOTAL |
|--------------------------------------------|------|----------------------------|---------|-------|-------|
| <b>Wall Plates or Sills for Foundation</b> |      |                            |         |       |       |
| Pcs                                        |      | Main Building              |         |       |       |
|                                            |      | Main Building              |         |       |       |
| <b>Girders and Lintels</b>                 |      |                            |         |       |       |
| Pcs                                        |      | Front Porch                |         |       |       |
|                                            |      | Front Porch                |         |       |       |
| <b>Girder Posts</b>                        |      |                            |         |       |       |
| Pcs                                        |      | Main Building              |         |       |       |
| <b>Floor Joists, Headers and Trimmers</b>  |      |                            |         |       |       |
| Pcs                                        |      | First Floor Main Building  |         |       |       |
|                                            |      | First Floor Main Building  |         |       |       |
|                                            |      | First Floor Main Building  |         |       |       |
|                                            |      | Front Porch                |         |       |       |
|                                            |      | Front Porch                |         |       |       |
|                                            |      | Rear Porch                 |         |       |       |
|                                            |      | Rear Porch                 |         |       |       |
| <b>Ceiling Joists</b>                      |      |                            |         |       |       |
| Pcs                                        |      | Second Floor Main Building |         |       |       |
|                                            |      | Second Floor Main Building |         |       |       |
|                                            |      | Second Floor Main Building |         |       |       |
|                                            |      | Second Floor Main Building |         |       |       |
| <b>Outside Studs</b>                       |      |                            |         |       |       |
| Pcs                                        |      | Main Building              |         |       |       |
|                                            |      | Main Building              |         |       |       |
|                                            |      | Main Building              |         |       |       |
|                                            |      | Front Porch                |         |       |       |
|                                            |      | Front Porch                |         |       |       |
|                                            |      | Rear Porch                 |         |       |       |
|                                            |      | Foundation Studs           |         |       |       |

**MATERIAL LISTING GUIDE** One complete listing guide of materials—16 pages. This list is divided into sections covering foundation material, lumber, millwork, roofing, flooring, plaster, paint, hardware, etc. Nothing omitted. If you use this list you will be sure that every essential item of material is included in your estimate. Saves hours of time and prevents costly omissions.



# SPECIFICATIONS

## REDUCED FACSIMILE of Specifications

Actual Sizes:  
8½x14 inches

24 pages to  
Each  
Specification

### **SPECIFICATIONS** FOR THE ERECTION OF A

For Mr. \_\_\_\_\_

At \_\_\_\_\_



These Plans and Specifications are the Property of  
\_\_\_\_\_

And Shall Be Returned Upon Completion of Building.

**EXACTING SPECIFICATIONS** Nothing is so likely to prevent misunderstanding as a full and complete statement of what you propose to furnish. These specifications have been prepared by experienced architects and builders so as to cover each house illustrated in HOME BUILDERS CATALOG. There is a provision for each item—nothing is left to the imagination.



# BUILDING CONTRACTS

## REDUCED FACSIMILE OF BUILDING CONTRACT

Actual Size:  
8½x14 inches

Two of these  
contract forms  
with every two  
sets of Blue-  
Print Working  
Plans.

**Building Contract**

AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 192\_\_\_\_  
by and between \_\_\_\_\_  
CONTRACTOR, and \_\_\_\_\_, OWNER.

WITNESSETH:

1. THAT the CONTRACTOR, in consideration of the payments to be made by the OWNER, hereby agrees to furnish all the materials and labor for a new residence to be erected on \_\_\_\_\_ in City of \_\_\_\_\_ State of \_\_\_\_\_ according to plans and specifications hereto attached, in a good, substantial and workmanlike manner. All materials shall be subject to the inspection of the OWNER at all times and the CONTRACTOR upon notice shall remove and replace all defective and unfit material and work, whether complete or not at his own expense. Changes from original plans and specifications shall be agreed upon in writing by the parties hereto with the price to be paid therefor before work is begun on such changes. Unless so agreed upon, such changes will be made at the expense of the CONTRACTOR.

2. THE OWNER shall pay the CONTRACTOR for said residence building complete according to plans and specifications the sum of \$ \_\_\_\_\_ as follows:

- \$ \_\_\_\_\_ when basement walls are complete.
- \$ \_\_\_\_\_ when house is sheathed and roof complete.
- \$ \_\_\_\_\_ when carpenter work outside with rough heating and plumbing is complete and house plastered.
- \$ \_\_\_\_\_ when house is complete according to plans and specifications.

The CONTRACTOR shall furnish the OWNER waivers of lien in writing as required from time to time. The CONTRACTOR shall also carry workman's compensation insurance as may be required by law.

3. The CONTRACTOR shall complete said residence building as herein required on or before \_\_\_\_\_, 192\_\_\_\_, and if he shall fail to do so, he shall pay the OWNER by way of liquidated damages the sum of \$ \_\_\_\_\_ per day for each day the work remains incomplete, unless the cause of delay is beyond the CONTRACTOR'S control in which case the time for completion shall be extended the actual time of such delay.

4. IT IS HEREBY AGREED that any matter arising hereunder, which cannot be mutually agreed to between the CONTRACTOR and OWNER shall be settled by reference to two indifferent persons, one to be named by each of the parties, with power for such persons to appoint an umpire in case of their disagreement; and the award of said two persons or umpire shall be final and conclusive.

5. THE CONTRACTOR AND OWNER for themselves, their successors, executors, administrators and assigns, hereby agree to the full performance of the covenants herein contained.

IN WITNESS WHEREOF they have executed this agreement the day and year first above written.

\_\_\_\_\_  
Contractor.

\_\_\_\_\_  
Owner.

431 So. Dearborn St. Chicago — HOME BUILDERS CATALOG CO. — 1431 Broadway New York

**BUILDING CONTRACT** Two blank, legal contract forms to be signed by building contractor and owner. This puts your agreement with the man you are building for on a sound, legal basis and saves lawyer's fee for drawing contract.



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